Aggarwal, Bhavya



Bhavya graduated from BITS Pilani with a bachelor's in electronics & instrumentation engineering and a master's in economics. She joined the Reserve Bank of India in the Advanced Financial Research department and was instrumental in carrying out various projects in corporate finance, banking, and fintech. While at RBI, she co-authored a research paper on the stickiness of technology adoption in response to cash shortage. In another project on stress testing, she used the KMV Merton model to predict default frequency of Indian firms. This experience helped her develop expertise in econometric techniques and programming languages. Subsequently, Bhavya worked with JPMorgan in their Interest Rate Risk team where she helped develop the global Net Interest Income (NII) strategy for the CIO and monitor economic and earning based measures for IRRBB. She was responsible for building a Deposit Trend model to predict stable balances for different LOBs. She was also tasked with reviewing the firm's interest rate model in negative and zero rate scenarios. Through these projects, she not only became adept at Python and R but was also able to apply mathematical and statistical concepts to real life problems in finance. Bhavya is passionate about social work and has volunteered with a NPO to improve Self Help Group's (SHG) livelihood opportunities. In her leisure time, Bhavya likes reading, listening to music, and cooking.

Ahuja, Sanket



Sanket graduated from IIT Bombay with a bachelor's degree in civil engineering. He is a certified FRM and has cleared the CFA level 3 exam. He joins the Berkeley MFE program with more than 5 years experience in both financial risk management and technology product management. Most recently, he worked as an AVP for Credit Suisse in their economic risk capital methodology function where he developed models to capture risk across credit, interest rate and equity products. He also worked for S&P's India subsidiary, CRISIL, in their research division where he was awarded the analytical excellence award for developing quantitative and qualitative models to rank mutual funds. Sanket also worked as a product manager at a 3P logistics aggregator startup where he led a team managing the overall logistics function for e-commerce clients. The startup was subsequently acquired by a major e-commerce firm where he continued to work in the analytical insights team. In his leisure time, Sanket enjoys playing snooker and cricket and is a soccer enthusiast.

Amit, Tomer



Tomer received his master's degree in mathematics from Tel Aviv University in 2017, Summa Cum Laude. While there, he wrote his thesis in Harmonic Analysis, on the Uncertainty Principle related to Payley-Wiener and other infinite dimensional function spaces. In his research, Tomer combined arguments taken from other fields of mathematics - probability, complex analysis and functional analysis, to prove results that have been of interest to mathematicians for many vears and have applications in physics and signal processing. After graduation, Tomer joined WorldQuant as a quantitative researcher and was quickly promoted to senior quantitative researcher in the spring of 2019. There, Tomer wrote alpha models to predict stock returns in python and C++, which process large amounts of data and use complex machine learning algorithms. He also initiated and became the leader of a deep learning project for alpha creation, for which he received an award and firm-wide recognition. In this project, Tomer developed and advised others in using neural networks, recurrent models, word embeddings and other related algorithms. In his spare time, Tomer enjoys learning foreign languages - he is currently studying his 6th language.

Barnwal, Vaibhav



Vaibhav Barnwal earned his bachelor's degree in mechanical engineering from IIT Delhi. Upon graduation, Vaibhav joined BlackRock's Financial Markets Advisory team as a consultant. During his 3 years at BlackRock, Vaibhav worked with a large clientele in the US and EMEA consisting of banks, financial institutions, and government entities where he provided analytical solutions to their complex divestment and risk assessment challenges. Vaibhav also led the development of multiple frameworks in R and Python to automate and streamline the annual stress testing exercise, focusing on structured products in clients' fixed income investment portfolios. He won the BlackRock Principles Award in 2018 for an inspiring demonstration of the BlackRock Principle: "We are Passionate about Performance". Before the MFE program, Vaibhav joined Goldman Sachs Securities Division and worked with the Mortgage Trading Desk in computing pre-trade analytics of legacy NPL/RPL, Prime Jumbo and non-QM mortgage sales. He also worked on multiple Rating Agency models to assess loss coverage requirements for subsequent securitizations. In his leisure time, Vaibhav enjoys freestyle dancing and loves to play the piano and ukulele.

Belghouate, Khalil



Khalil Belghouate holds a master's degree in Applied Mathematics from Ecole Nationale des Ponts et Chaussées where he developed a solid foundation in stochastic calculus, monte carlo and numerical methods. Before joining the Berkeley MFE Program, Khalil worked as a quantitative auditor with Natixis - Group BPCE, the second-largest banking group in France, where he conducted audit and advisory assignments across the Global Markets division and also presented to executive board members. He focused on various asset classes like equities where he reviewed front-office models such as the local and stochastic volatility model used to price Autocallable instruments, by analyzing prices and greeks stability, convergence as well as P&L attribution framework. Khalil polished his programming skills during multiple internships. He developed back-testing tools for new quantitative strategies using C# as an index structuring assistant with Kepler Cheuvreux. Before Kepler Cheuvreux, he interned with Natixis where he implemented a C# program to solve a nonlinear PDE stemming from the non-parametric calibration of the LSV model using finite difference method. Khalil also interned at Postech University in South Korea where he studied the interpretability and fairness of machine learning algorithms. In his spare time, Khalil enjoys kickboxing and soccer. He is an avid traveler who has explored ~30 cities across 13 countries and four continents. He is also interested in politics and economics.

Benvenuto, Vincent



Vincent attended Télécom Paris where he studied applied mathematics, machine learning and economics. He will officially receive his master's degree from Télécom Paris upon completion of the Berkeley MFE Program. During a summer internship at Comgest, a boutique asset management firm in Paris, he had the opportunity to develop his financial intuition and to collaborate with portfolio managers on company analysis. He also worked with a quantitative PM on a proof of concept using LSTM. Vincent also interned for six months at Oddo BHF on the fixed-income trading desk. He directly assisted high-yield day traders and the entire market making team, providing insightful trading ideas and statistics. He designed a machine learning credit rating prediction tool and updated pricing models for CMS bonds. In addition, Vincent supervised an innovation project that identified smart counterparties using time series feature detection. Vincent has passed the CFA Level I exam. In his spare time, Vincent enjoys traveling and performing drums live.

Bietrix, Alex



Alex Bietrix obtained his master's in banking, finance and insurance, with a specialization in financial markets from Paris-Dauphine University where he studied financial derivatives, fixed income, statistics as well as Python and machine learning. Alex completed an internship at Kayrros, where he monitored worldwide oil storage in the satellite imagery processing team. There, he worked on the company database and gained exposure to machine learning. After graduation. Alex worked at Total, a major French oil company, in the trading and shipping division where he developed a model to predict the evolution of the petroleum freight market using time series analysis, machine learning methods, and Python. He also set up a big data analysis to initiate the monitoring of petroleum product flows, and finally developed a risk modeling tool for charterers based on quantitative methods, such as principal component analysis and Monte Carlo. In addition to these relevant professional experiences, Alex has had extensive international exposure--internships in China and Switzerland, an exchange semester in Russia, two road trips across the United States--which gave him skills to interact with people from diverse cultures and backgrounds. In his spare time, Alex enjoys reading about history and geopolitics and plays badminton and soccer.

Bishop, Kyle



Originally from the small town of Gympie in Queensland, Australia, Kyle moved to Brisbane to study at the University of Queensland. There, he graduated with both a Bachelor of Engineering (Honours Class I) and a Bachelor of Commerce as one of the top students in his class. As an undergraduate, he worked as a research assistant developing automated systems to analyse wind speed time series data. Kyle thoroughly enjoys being challenged in a high intensity environment because it drives him to better integrate mathematics, decision science, and computational finance when proposing innovative and practical solutions to problems. Energetic and focused, his passions lie in developing automated trading strategies with a particular interest toward medium to long term strategies. During an internship at Optiver Asia Pacific, he learned about market microstructure, derivative pricing theory and risk management, and developed a model to improve pricing of Nikkei 225 futures. Kyle's interpersonal skills enable him to collaborate with others in ways to consistently improve not only himself, but also his team. He is a multifaceted individual who is adept at communicating with people from diverse backgrounds-this is exemplified by his study abroad experiences at UC Berkeley, the London School of Economics, and ESSCA Budapest.

Bogodist, Antony



Tony received his bachelor's degree in Economics from The University of North Carolina at Chapel Hill. He is currently a Vice President at BlackRock in the Factor-Based Strategies Group, which oversees roughly \$25bn in enhanced factor strategies across alternative risk premia, risk parity, long only equity, and timing strategies. In his current role, Tony is a leading strategist on Style Advantage, a \$7bn alternative risk premia fund, and Total Factor Fund, the team's flagship enhanced factor mutual fund. His projects frequently involve working with clients in a solutions capacity on completion portfolios, factor/risk decompositions, attribution, and product development. He is currently in the process of working to launch a standalone CTA strategy under the team's umbrella. Before BlackRock, Tony held several summer internships while completing his undergraduate studies. In one capacity, he worked at Barclays on the structured products desk where he was tasked with pricing and compiling structured notes for the firm's wealth clients. In his first internship, he worked as a trading trainee at MJT Software Development, a market making software service on the floor of the NYSE Arca, that provided foundational knowledge of derivatives market making and trading. Prior to university. Tony was a top ranked tennis player who achieved a top five ranking within every junior age group in Northern California and was consistently ranked within the top 100 in the country, garnering a number of scholarship offers across Division I programs.

Bouhnik, Zacharie



Zacharie Bouhnik attended ENSAE Paris where he studied mathematics, statistics, and economics, and he will officially receive his master's degree from ENSAE upon completion of the Berkeley MFE program. While at ENSAE, Zacharie completed several research projects such as a statistical analysis of the electricity spot market. Before joining the Berkeley MFE program, he worked as a deep learning researcher in a startup specialized in AI consulting, where he implemented custom natural language processing models based on recent papers and outperformed common NLP libraries. He also worked on improving credit risk prediction for insurance companies using various neural network architectures as well as gradient boosting algorithms. During a previous internship at Crédit Agricole CIB, Zacharie worked closely with market risk analysts on a Python library for the processing and analysis of financial data in a big data environment. In his spare time, Zacharie enjoys practicing Karate, and likes to take part in debating and video games competitions.

## Cazaubieilh, Gabriel



Gabriel will hold a Master of Financial Engineering from UC Berkeley and a Master in Management from HEC Paris upon completion of his coursework at Berkeley. Through his studies, he developed a solid understanding of macroeconomics, market and corporate finance, and programming in Python, R, Java, and C++, as well as Version Control with GitHub. He is keen on continuously learning about rigorous methods for investing, through his projects, independent reflection. and personal trading activity through online broker DeGiro. He is currently working on an agent-based model, calibrated to replicate market key features, written in object-oriented Python. Gabriel is also very interested in Mathematics, which he taught as a Teaching Assistant, and as a volunteer in the association Fleur de Bitume. He used statistical methods to forecast future sales as a Market Intelligence intern at Volvo Construction Equipment. In preparation for the MFE, he also completed coursework in Machine Learning and Neural Networks. Through his involvement in the junior consulting club, he led consulting engagements in mixed teams of engineers and business students, from requirements capture through to delivery. During his spare time, Gabriel plays Blitz chess and tennis, and reads literature in French, English, and German.

Chalana, Manish



Manish Chalana holds a bachelor's and master's degree in Mechanical Engineering from Indian Institute of Technology (IIT), Bombay. While there, he did an internship with Nomura in their QIS team where he used Extended Kalman Pricing and Support Vector Machines to create an online option pricing prediction using Black Scholes. After completing his studies, he joined Nomura in their Quantitative Risk team responsible for creating and maintaining models for calculation of exposure limits as well as regulatory & economic capital arising from the OTC derivative books in Rates, FX. Credit and Equity. He worked with traders in India, Hong Kong, Singapore and Korea for existing and incremental risk metrics of their books in swaps, swaptions and a few other exotic instruments across major asset classes. He conceptualised and implemented primary risk factor backtesting of risk factors and their combinations based on the simulated scenarios and enhanced the usual traffic light approach in backtesting of long horizon overlapping forecasts. He was responsible for quarterly regulatory reporting of firms models' backtesting results ranging from portfolio selection, analytics and reporting. During his time at the firm, he has built a plethora of analytical tools and computations using Excel and Python. Before joining the MFE program, Manish was with a systematic equity trading fund where he worked on execution algorithms and created and backtested momentum factor returns based portfolio strategies for India and US stocks. He has also completed independent coursework in quant trading in 'AI for Trading' by Wordquant and 'Deep Learning' by Facebook AI and AWS teams hosted by Udacity. He has also passed the CFA Level 2 exam. He is an avid cricket enthusiast and likes to listen to music in his spare time.

Chavan, Prajakta



Prajakta worked with the Royal Bank of Scotland (RBS) in the Debt Capital Markets division in Mumbai and London, with a focus on bond origination efforts for banks and insurers. Her research work involved identifying trading opportunities and credit risk in the fixed income and derivatives market. During her 3.5 year tenure at RBS, Prajakta built a predictive model on movement in covered bond spreads using regression analysis. She also worked on project finance and acquisition finance proposals for renewables, transportation, and utilities sectors. Prajakta received her MBA with a major in finance and marketing from the Xavier Institute of Management Bhubaneswar, India. She graduated with a bachelor's degree in electronics and telecommunications from the University of Mumbai and worked with Tata Consultancy Services for a brief period. Her final year project titled 'Diagnosis of Malignant Melanoma using ABCD Parameters' involved image processing algorithms in MATLAB. This academic experience laid a solid foundation in math, finance, and programming for her eventual career. She has passed the CFA Level II exam. In her leisure, Prajakta enjoys travelling and dancing.

Chen, Derui



Derui Chen graduated from University of International Business and Economics in Beijing with a bachelor's degree in financial engineering. Before joining the Berkeley MFE program, Derui interned at Lingjun Investment, and was responsible for conducting quantitative analysis to support derivatives trading. In this six-month internship, he designed trading strategies for equity index options, and implemented various models for tasks including exotic option pricing, volume predictions and hedging. In his senior year, Derui interned at NorthEast Securities in Beijing, where he applied statistical models to discover and validate trading signals for intraday commodities trading. Meanwhile in school, he conducted research on volatility spillovers between crude oil future and forex using time series analysis, and took courses in machine learning, which greatly improved his data analysis skills. He also interned at China International Capital Corporation and Bankorus during his junior year, and was mainly responsible for performing portfolio risk analysis. In his spare time, Derui enjoys playing table tennis, watching movies and chess.

Chen, Pierre



Pierre Chen attended ENSAE ParisTech where he studied applied mathematics, statistics, and economics. He will officially receive his master's degree from ENSAE upon completion of the Berkeley MFE program. During his studies, Pierre completed several projects in statistics and machine learning. In a project in collaboration with Canal+, Pierre implemented advanced topic models in order to make predictions on audience figures for several targeted shows. Before joining the MFE, Pierre worked as an intern at Amundi Asset Management's quantitative research team where he performed research on portfolio optimization methods. He contributed as a coauthor in an article that developed a method for portfolio optimization with quadratic transaction costs. Pierre also participated in a number of Hackathons where he used Python and Machine Learning for real applications. During the Paris Peace Forum Hackathon, his project on climate change finances transparency was selected and broadcast on television. In his spare time, Pierre enjoys playing soccer and practicing violin and guitar.

Chen, Rena



Rena is a former management consultant with extensive project and C-suite exposure in financial services, pricing optimization, and digital space. Rena earned her Bachelor of Mathematics in Statistics, Operations Research, and Computational Math from the University of Waterloo with distinction. After graduation, Rena worked for more than two years as a Senior Consultant at Oliver Wyman, a global management consulting firm based in New York. Leveraging her quantitative background in Python and SQL, Rena led the development of a proprietary life insurance and digital platform that housed complex actuarial calculations and processing logic for multiple flavors of life insurance products (e.g., interest-sensitive whole life, variable annuities). She also conducted end-to-end model validations and remediations for major investment banks and life insurers. Outside of financial services, Rena served clients in the aerospace industry, helping them improve their pricing and revenue management functions. During Rena's undergraduate years, she held five co-op work terms (~2 years of work experience) in capital markets, technology, and consulting. She worked as a sell-side quant developer at Scotiabank Global Banking and Markets on their FX trading desk and was responsible for assessing variations of bid-ask margins by examining high-frequency tick data from liquidity providers. Rena passed the CFA Level II Exam in June 2019. In her spare time, she volunteers at coding boot camps for young kids, encouraging them to pursue a path in STEM.





Ming graduated with a bachelor's degree from Shanghai Jiaotong University and will receive his Master of Finance degree from Tsinghua University upon completion of the Berkeley MFE. Ming's work experience covers quantitative research and risk management. He interned as a quantitative analyst for WorldQuant where he was responsible for developing trading factors by extracting meaningful information from financial reports with NLP methods like NER and word embedding. Prior to his role at WorldQuant, Ming worked for the risk management department of Morgan Stanley as a summer intern. There, he developed automatic upgrading programs and a text similarity model based on SimHash. He did a project for the National Natural Science Foundation of China during his undergraduate studies, where he used machine learning methods to classify the text data of consumers' complaints. Ming likes playing poker and is a baseball enthusiast. He was the second baseman of his school baseball team.

Cheng, Shuo



Shuo worked at J.P. Morgan New York for two years where she covered Equity Derivatives as part of the market risk and sponsors' sales teams. She developed scenario analyses, such as tracking forward gamma under severe equity sell-off cases, using in-house Python pricer and automated reports aggregating options greeks using SQL and VBA for desks including Delta1, Event Driven, Dispersion, Flow and Corporate Derivatives. Furthermore, she researched market sensitivity to events like Brexit, XIV liquidation and Puerto Rico's default. She also pitched and executed corporate equity derivatives, margin loans and structuring solutions based on client needs. Shuo covered the tech, media and telecom (TMT) as well as the financial sectors. She helped to develop and engineer execution algorithms for accelerated share repurchase programs with the bank's top clients. Shuo graduated from the University of Southern California with a bachelor's degree in business administration and a minor in mathematical finance. She is a pianist who has competed internationally. She is passionate about music, concerts, opera, traveling, skiing, and watching tennis. Having grown up in three different continents, she is versatile, resilient and always ready for new challenges.

Cirotteau, Charles



Charles attended CentraleSupelec where he studied mathematics, statistics, and economics. He will officially receive his master's degree from CentraleSupelec upon completion of the Berkeley MFE program. During his studies, Charles completed several projects in statistics including implementing variance swap pricing utilizing C++. Before joining the Berkeley MFE program, Charles completed the Udacity Machine Learning Engineer nanodegree using principally Python. While working as an intern at Safran, European's largest aeronautics company. Charles participated in negotiations with the French public environmental agency ADEME to receive financing for the implementation of low-carbon emission factory design. Charles used time series analysis to develop and present his findings on design and costs of the factory. He modeled an estimation of costs according to the use case scenario of proposed factory designs utilizing Excel/VBA. Charles passed the CFA Level I exam. He deeply enjoys reading about politics and economics. Charles is also fond of sport competitions. He especially enjoys soccer, rowing, and skiing. He participated in the academic French rowing Championship during his studies at CentraleSupelec.

de la Orden, Gonzalo



Gonzalo graduated with a bachelor's degree in electromechanical engineering and a master's degree in industrial engineering from Universidad Pontificia Comillas, in Madrid. During that time, he also received a double-diploma in engineering with a specialization in mathematics and computer science from Ecole Centrale de Nantes in France. During his studies, Gonzalo interned in Singapore as a software engineer at FlexTrade, a global leading FinTech offering broker-neutral, multi-asset execution and OMSs solutions, where he carried out the migration of a credit management software used globally by stock exchanges to manage risk. Back in Spain, Gonzalo worked as a VC Analyst at Samaipata, a pan-European venture capital fund, where he looked for early-stage investment opportunities across Europe. He was later promoted to Lead Data Scientist and was given equity for leading the inception of a sourcing platform to automatically find and target startups online, using NLP and scraping algorithms across the internet. Before joining the MFE, Gonzalo worked as a Product Manager intern at a Palo Alto-based AI startup, where he designed the strategic growth plan and researched on AI algorithms to refine a matchmaking algorithm. Gonzalo speaks fluent Spanish, French and English and has passed the CFA Level I exam. In his spare time, he is a certified yoga teacher and loves surfing, traveling, playing music and contemporary art.

Deng, Bolun



Bolun Deng graduated from the University of California, Berkeley, with dual bachelor's degrees in Statistics and Economics. During his undergraduate studies, Bolun conducted quantitative research applying machine learning and time series methods with fundamental meaning and economic interpretability. He also completed four internships in the financial sector: as an indexing & guant research analyst intern at China Southern Asset Management. Bolun conducted research in construction of Python scripts based on factor models for factor evaluation and stock selection, aiming for index enhancement. He also interned as a credit risk analyst for Structured Finance in New York. Here he built cash flow models and constructed Monte Carlo simulation in VBA to generate yield distribution for each tranche of asset-backed securities, which enabled the team to reproduce accurately the dynamics of credit losses within a single realization of pools. Bolun has passed the CFA Level I exam. In his spare time, he is a part-time photographer; at UC Berkeley, he was the captain of the (winning) intramural soccer team.

Digard, Paul-Noel



Paul-Noel attended ENSAE Paris where he studied applied mathematics, statistics, and economics. He will officially receive his master's degree from ENSAE upon completion of the Berkeley MFE program. While at ENSAE, Paul-Noel completed a research project in collaboration with Société Générale on interpretability methods in machine learning. He applied explanatory models to various classification/regression problems to understand how predictive algorithms arrive at the answers they do. Paul-Noel extensively coded in Python in an object-oriented way during his internship at CrossQuantum where he helped design and implement a Robo-Advisor for the mobile app LaFinBox that assists the user in managing his assets. At AXA he designed and implemented machine learning methods in Python and PySpark to predict whether a person will terminate his car insurance contract. Paul-Noel also interned for 6 months at HSBC Global Asset Management's quantitative research team. There he co-authored an article investigating ways to perform styles rotation using macroeconomic, market sentiment, and momentum indicators. In his spare time Paul-Noel enjoys playing soccer, reading (history and literature) and the cinema.

Diridollou, Loic



Prior to the MFE, Loic studied statistics and economics at ENSAE Paris where he developed solid skills in stochastic calculus, probability, econometrics, and machine learning using different languages (Python, R and C++). He also holds an associate degree in law from Paris I Panthéon-Sorbonne University. His internship experience includes asset management, equity trading and quantitative research. While at the Dutch investment bank Kempen, he worked on several data science and machine learning projects to help traders identify signals. Then, in a quantitative research role at EY Advisory, he was responsible for developing and calibrating a local volatility model that improved option pricing precision as well as working on call-spread options P&L calculations and client engagements for major French banks. Loic enjoys exploring innovative methodologies with machine learning such as evolution strategies for trading and deep learning for options pricing. He also has a keen interest in systematic trading and quantitative strategies. Loic spends his free time reading economic news and studying geopolitics; he is also a long-time sailor and sailing

instructor.

## Divi, Sravya



Sravya holds a bachelor's degree in Computer Science and a master's degree from Indian Institute of Management Raipur with a specialization in Finance. She has also successfully cleared the CFA Level 2 exam. Post graduation, she joined the Investment Banking Division of a fintech firm to build the credit risk models for Citibank Wealth Management Division. Sravva built the credit risk models using stress testing and Python to predict the optimal loan approved for high net worth Individuals based on the portfolio value. During her tenure. she modelled a recurrent neural network to determine the credit risk that is currently being used by Citibank. Sravya also designed revenue strategies for senior management using time-series models, ANOVA to identify bottlenecks which helped to increase the guarterly revenue by 5%.Her strong analytical skills and data modelling led her to receive several awards including "Best Employee Award." Prior to joining the Berkeley MFE Program, she worked at Silicon Valley Bank in San Francisco in the Asset Management Division to develop quant strategies to increase net AUM. Sravya also interned at Deloitte for 6 months in the quantitative research team. She is passionate about coding and finance which led her to win the "International Hackathon Competition" at Deloitte. In her spare time Sravya enjoys playing Badminton, mentoring her college juniors, and NGO activities to serve underprivileged children's education.

Dixit, Aman



Aman Dixit received his bachelor's and master's degrees in electrical engineering from IIT Bombay. He also minored in computer science and engineering and undertook several courses and projects on signal processing, probability theory, and machine learning. Following a project on Financial Signal Processing, he developed a keen interest in quantitative finance which led him to work on another project on Financial Risk and Heavy Tails. He also took part in the JP Morgan Quant Challenge where he secured 1st place. Prior to joining the Berkeley MFE Program, he interned for seven months as a Quantitative Researcher with Tower Research Capital in a midfrequency trading team where his responsibilities included devising and implementing new trading algorithms for the Indian derivatives market, testing and improving current strategies, and creating libraries for testing utilities. During his internship, he developed three new trading strategies that are currently being traded by the fund. Upon completion of his internship he was awarded a full time offer for his exemplary work. Aman also cleared the CFA Level I exam. He is very fond of soccer and is a big supporter of Manchester United. In his spare time, he enjoys listening to music and watching movies.

Dou, Baojun



Baojun obtained his PhD degree in Statistics from the London School of Economics. His major research interests include: high dimensional time series analysis, dimension reduction techniques, large covariance matrix estimation and spatial econometrics. During his PhD, he published the paper "Generalized Yule-Walker Estimation for Spatio-Temporal Models with Unknown Diagonal Coefficients" in one of the top econometrics journals: Journal of Econometrics, as first author, Before his PhD. Baoiun obtained his bachelor's and master's degrees in Statistics from Wuhan University and the London School of Economics. Before the MFE program, Baojun worked at Goldman Sachs as a quantitative market risk modeller for three and half years. There, he was responsible for building value at risk model for interest rate products, leading interest rate risk banking book related projects such as designing economic value of equity and sensitivity risk metrics, developing and maintaining quantitative risk methodologies such as recalibrating instantaneous forward rate curve under different scenarios for G10 currencies, and calibrating severe interest rate moves from historical data by applying various machine learning methodologies. He enjoys taking care of his two year-old son in his spare time.

Duhoon, Prakarsh



Prakarsh obtained his Bachelor's Degree in Civil Engineering from IIT Roorkee. He has four years of experience in the investment management and financial services domain. Before joining the MFE program, he worked at WorldQuant India for two years. As VRC Head of Research and Territory Manager, he developed systematic trading signals (alphas) for global equity markets. His research ideas leveraged fundamentals, technicals, group momentum, ex-ante & expost returns. He implemented these using data sets including, but not limited to, news, analyst estimates, options, volatility, sentiment, supply chain and model data. Prakarsh bolstered VRC research by creating diversified specializations and alpha clustering heuristics. He led the Indian center growth from 200 to 1500 consultants in one year. Prior to that Prakarsh worked at KPMG where he did independent price valuation of OTC derivatives including currency forwards, swaps, CDS, bonds, options, swaptions & securitizations. Before that, he traded short sterling LIBOR STIR futures at Clavileno Capital. Prakarsh passed the CFA level I & II and completed Udacity's machine learning engineer nanodegree. In his free time, he likes to meditate, play tennis, and travel.

## Fang, Yanggang (Daniel)



Daniel earned his Bachelor's and master's degrees in Materials Science & Engineering from Tianjin University and the National University of Singapore (NUS), respectively. Upon graduation from NUS, Daniel worked as a process engineer at Micron Technology in Singapore, a U.S.-based semiconductor giant, where he led a team of 9 junior engineers and technicians to troubleshoot process failures and implement robust solutions. Apart from leading the team, he was responsible for conducting quantitative data analysis and root cause analysis on process deviations using SQL and Micron's built-in software. Additionally, he honed his project management skills by driving cross-team projects that successfully helped the company improve productivity and save costs. Before joining the Berkeley MFE program, Daniel developed hands-on skills in the field of quantitative finance through his internship at Jianghai Securities Asset Management in Shanghai. While there, he mainly worked on developing a Python-based backtesting and trading framework that was used for alpha generation, equity intraday trading, and CTA trading. He also partnered with portfolio managers to develop trendfollowing trading strategies based on Renko signals. Besides his work experience in the financial industry, Daniel passed the CFA level II exam, and actively trades stocks in China's A-share market. In his spare time, Daniel enjoys and is dedicated to bodybuilding.

Garg, Nitish



Nitish graduated from Birla Institute of Technology and Science Pilani in 2014 with a bachelor's degree in manufacturing engineering. Prior to joining the Berkeley MFE program, he worked as a consultant in the Quantitative Advisory Services at Ernst and Young (EY) for about 5 years. He worked in risk management for banking book products using applications of mathematics, statistics and econometrics for banks' regulatory deliberations and capital planning. He was also responsible for the development and validation of models using time series analysis and regression for loss forecasting. During his time at EY, he finished a one-year expatriate assignment in the EY London office. Prior to that, he also finished a one-year rotation program in the EY New York office. These rotation opportunities were pivotal in enhancing his interpersonal and technical skill and cultivating an objective problem-solving ethos. The increasing use of machine learning and efficient computation techniques in quantitative finance is of special interest to him. During his free time, Nitish likes to go for long distance runs and watch cricket.





Xin Ge graduated from the University of California, San Diego, where he completed his bachelor's degree in Mathematics & Computer Science and Management Science. During his studies, Xin Ge had four internships in the financial sector. While interning at HSBC JinTrust, Xin Ge worked with a team to conduct quantitative research on factors and build a model to select stocks of a portfolio for a fund. In Zhonghai Trust, Xin Ge implemented a five-factor model by processing data and analyzing regression results to forecast stock market movements. Xin Ge also improved his skills in the risk management and investment bank division when working at MSCI and Morgan Stanley Huaxin Securities, respectively. In addition, Xin Ge worked with a team to complete a quantified portfolio trading system, where he implemented a core algorithm based on the Markowitz mean-variance model in Python. In his leisure time, Xin Ge likes to play classical guitar, fitness and to travel.

GODARD, Alexandre



Alexandre graduated with a master's degree in Economics and Financial Engineering from Paris-Dauphine University where he gained a solid background in finance, econometrics, statistics and financial derivatives. In addition, he gained proficiency in C++ and Python. In his final year, Alexandre developed an Autocall pricer in C#. In preparation for the MFE, he took partial differential equations and numerical analysis courses and specialized in machine learning through Coursera. While interning at the European Commission as a research assistant, he developed and implemented a new bottom-up process to estimate the real estate price level in several OECD countries. During the last year of his studies, he interned at Société Générale as a Money Market Sales Assistant. As a member of the bachelor's students association. Alexandre implemented a tutoring program in mathematics, statistics and microeconomics. Alexandre passed the CFA Level II. In his spare time, he enjoys going to the gym, running, and reading.

Guo, Hao



Hao Guo graduated from Tsinghua University with a bachelor's degree in Industrial Engineering and a minor in Finance. During her studies, Hao developed a solid understanding of statistics and quantitative finance, both through theoretical and practical applications. She interned at a hedge fund in China for one year as a quantitative analyst where she was responsible for building multi-factor models for digital currency assets and developing pairs trading strategies on metal futures. Also passionate about Data Science, she has pursued several online courses after graduation. In her spare time, Hao enjoys socializing with friends, working out, cooking, and traveling.

## Guo, Jiayin



Jiayin Guo received a bachelor's degree in mathematics from Tsinghua University and earned his Ph.D., also in mathematics, from the University of California, Los Angeles. At UCLA, Jiayin joined the Geometry Group and worked as a graduate student researcher. His doctoral research focused on the application of Hodge theory to the Teischmuller space for punctured Riemann surfaces. He generalized the classical Wolpert's formula and proved optimal upper bounds for various curvature tensors. In the latter period of his graduate work. Jiayin gained broad knowledge in optimization, statistics, mathematical finance and machine learning. Participating in a financial project, Jiayin built a ticker generator and a pricing engine for a real time FICC monitor and implemented an automated trading algorithm based on the Gaussian Naive Bayes model. Jiayin also led a group of students to work on a data analysis project investigating the delay ratio forecasting problem within an airport network. In his spare time, he enjoys hiking and climbing.

Gupta, Naveen



Naveen studied electrical engineering at Indraprastha University in India, where he graduated with a first-class degree. He has 5 years of work experience in the advanced analytics/machine learning domain. At Opera Solutions, a New York-based analytics consulting firm, he was instrumental in developing analytical solutions for Fortune 100 banks, insurers, and aviation firms using Python, R, SQL, and distributed systems. Three years later, Naveen was promoted to Senior Analytics Engineer. He then worked as a Data Scientist for UnitedHealth Group, developing machine learning models to minimize customer attrition by more than 22% for the medicine home delivery program. He also worked for a brief time at a Dutch- based start-up called OLX Group, building predictive modeling pipelines to help identify fake seller listings on their platform. His interest in financial markets led him to take the CFA Level I exam which he recently passed. Apart from work, Naveen enjoys reading non-fiction books and watching documentaries. He is passionate about volunteering for non-profit organizations with which he has worked extensively since college.

## Hu, Yanyan



Yanyan received two bachelor's degrees -- in computer science and statistics -- with a concentration in econometrics from the University of Virginia where she gained a solid foundation in machine learning, data science, and quantitative finance. Her past projects include leading factors of stock volatility research and NLP/sentiment analysis on 10-K SEC Filings. After graduation, she interned as a technology analyst at PIMCO (with a return offer) to develop real-time trading systems on automation of pre-trade and post-trade risk and compliance checks. Prior to joining the Berkeley MFE program, Yanyan worked as a quantitative research analyst at Harvest Asset Management in China where she built multi-factor models based on random forest models, performed smart beta portfolio optimization of an ETF fund, and delivered presentations to institutional clients during roadshows. Her previous internships as an investment banking analyst at Bank of China and as an equity research analyst at Diamond Equity Research in New York City also gave her exposure to M&A deals, building DCF models and updating research notes by analyzing financial statements. She has passed the CFA Level I and FRM Level I exams. In her spare time, Yanyan enjoys volunteering at art museums, costume designs, surfing and scuba diving.

ljaz, Yawer



Yawer attended the Chinese University of Hong Kong and graduated with a bachelor's degree in quantitative finance and risk management science with first class honors. Prior to joining the Berkeley MFE program, he worked as an equity derivatives trader at Haitong International in Hong Kong, where he traded and made markets in derivatives products and implemented algorithms to support market making activities. In addition, he analyzed high-frequency data and developed models to evaluate the behavior of different warrant issuers. Before that, he worked at Societe Generale as a tech developer for the equity exotics and warrants desks, creating tools and dashboards to monitor risks and counterparty activities. He has passed all FRM and CFA exams. Yawer is pursuing the Berkeley MFE degree to sharpen his quantitative skills to develop novel trading strategies. In his leisure time, he enjoys calisthenics, board games and swimming.

# JI, XUANYI



Arthur received bachelor's degrees in statistics and economics from Baruch College and Southwestern University of Finance and Economics in a dual degree program. Prior to joining the Berkeley MFE, he worked for China International Capital Corporation and Credit Suisse, where his work focused on constructing investment strategies based on statistical arbitrage and regression models. As a quantitative developer at CICC. Arthur developed and improved a model in Python to realize the arbitrage of the CSI Smallcap 500 Index by short-selling stocks in a specific stock pool and long-buying stock index futures in an inverted market. This strategy generated profits of up to 20 million CNY for the company. In addition, while working at Credit Suisse in New York, Arthur's team developed an investment strategy with a Sharpe ratio of 2.3 by constructing and selecting features with high information coefficients in C++ and fitting a regression model using the XGBoost algorithm. During his free time, Arthur enjoys going to the gym and running. He has completed a half-marathon within 113 minutes.

Joshi, Akshay



Akshay earned his bachelor's and master's degrees in Electrical Engineering from the Indian Institute of Technology in Bombay, with a semester at The Cooper Union in New York as an exchange student. Upon graduation, he worked at Credit Suisse and Deutsche Bank in various roles. At Credit Suisse, Akshay worked in the prime risk technology team where he built and optimized the performance of a trade reconciliation tool widely used in the bank to analyze about 400k client positions in Python. At Deutsche Bank, Akshay was part of the Counterparty Risk Strats desk where he backtested the framework for guantitative SIMM (Standard Initial Margin Methodology) Model for the Rates, FX and Equity product class OTC derivative trades. He developed incremental margin calculation tools which are currently utilized by the cross currency swap and swaption trading desks. At Deutsche's London HQ, Akshay worked on regulatory projects from ISDA including the market data submission and testing of the new SIMM versions using python, SQL and VBA. He passed the CFA Level II exam in 2018. Akshay's interests include playing table tennis, cricket, soccer and indulging in adventure sports of all kinds. He loves to travel – he has visited eighteen countries spanning four continents since graduating from college four years ago.

Kanani, Seema



Seema graduated from the University of Mumbai, where she received a bachelor's degree in Electronics and Telecommunications. During her studies, she learnt Neural Networks and Fuzzy Logics, Random Signal Analysis, Discrete Time Signal Processing and Encryptions. She also worked on projects such as Hand Gesture Recognition using Artificial Intelligence in C#, and Football Match Prediction which predicted complex outcomes using the Backpropagation algorithm. After graduation, she joined Edelweiss Group as a Fixed Income and Money Market trader in the Treasury Management department. She helped the desk generate profits of \$1.5M for 2 years consecutively by trading \$1billion daily in short-term Repo and Commercial Papers in OTC for ALM matching. Seema implemented approximately 20 trading strategies using market statistics, technical indicators, chart pattern recognition and machine learning to trade bond swaps, interest rate futures and Indian Government Bonds. She also implemented an automated trading algorithm (named NDuranS) for the cash market trading platform of Indian Government Bonds, which was one of the first automated traders in the Indian Fixed Income cash market. Seema was awarded the title of Edelweiss Titan twice (Innovator Titan 2017 and Techno Titan 2018) for originality and innovation of NDuranS in the marketplace. Towards the end of her time at Edelweiss, she was given the opportunity to enhance her experience by moving to a quant researcher and developer role in the Global Markets team. Apart from work, Seema is an Arts Volunteer for Adveka Foundation (a mental Health Foundation). She is also interested in painting, astronomy and innovation. She completed online courses in Blockchain programming and quantum computing.

#### Kandi, Shiva



Before joining the Berkeley MFE program, Shiva worked for three and a half years at ARP Investments, India, where he was responsible for maintaining and improving CTA and Macro Strategies and developing technology stack. He implemented new factors such as hedging pressure and improved existing factors and signals for the Macro strategy. He also enhanced the risk model of the CTA strategy using risk budgeting to include other signals apart from pure trend signals while maintaining the convexity. Prior to ARP, Shiva worked at Goldman Sachs, where he engineered controls on transactional data across the order book and order allocation systems. He also worked at PayPal, where he developed KPI dashboard using big data of checkout transactions to provide insights and identify bottlenecks. Shiva earned integrated dual bachelor's and master's degrees in Electronics and Communications with specialization in wireless communications from the Indian Institute of Technology, Roorkee. He has studied different machine learning techniques and its application to financial data. In his leisure time, Shiva enjoys playing tennis, listening to rock music, reading non-fiction and writing screenplays.

Kuang, Zecheng



Zecheng Kuang obtained his bachelor's degree in mathematics and computer science from the University of California San Diego with dual honors (cum laude and department honors with distinction). His honors thesis evaluated singular-value decomposition and its applications such as file compression, handwritten digit recognition and facial images reconstruction. Upon graduation, Zecheng joined PingAn Insurance Company where he worked as an AI engineer and adapted natural language processing to create an insurance industrybased robot advisor. Before joining the Berkeley MFE program, Zecheng enhanced his machine learning and data science techniques through various certificates and has recently completed the Machine Learning Engineer Nanodegree from Udacity. Zecheng passed the CFA Level I exam. In his spare time, he enjoys working out, playing soccer, and billiards.

Lakhani, Anshul



Anshul obtained his bachelor's degree in Aerospace Engineering from the Indian Institute of Space Science and Technology. During his studies, he worked on several research projects centered on computational fluid dynamics which culminated in his thesis paper on key parameters for instability in low-density jets. He also led the Aerodynamics team for the student-designed sounding rocket project. Upon graduating, he joined Indian Space Research Organization (ISRO) as a scientist. Anshul was responsible for alignment operations of critical subsystems on all the ISRO spacecraft and successfully developed automation tools resulting in quicker execution time. In his spare time, Anshul has developed arbitrage strategies to capture mispricing among different crypto-exchange platforms and generated a 5x return on initial capital. Anshul passed the CFA level 2 exam. He enjoys playing table tennis, volleyball, and cricket.

Lambert, William



William Lambert earned his bachelor's degree in applied mathematics from University of Paris Dauphine. He then attended ENSAE Paris where he studied machine learning and financial mathematics. He developed solid skills in programming languages such as Python and C++ and earned top scores in his class in statistics and probability. Working as a data scientist in the AI Risk research team at BNP Paribas, he conducted research on the field of NLP and developed a question answering system based on neural network models such as transformers (BERT). This system, which combines multiple NLP approaches, was designed to answer challenging ESG questions regarding companies' annual reports. While working at BNP Paribas, William also worked on interpretable machine learning. He provided contrasting explanations for black box models used in decision-making for loans by implementing AI algorithms based on elastic-net regularization and feature selection. As a machine learning enthusiast, he submitted an NLP research paper to ICJAI20, and attended several hackathons. He maintains a Github account where he shares his work on a variety of topics including statistical studies of the German commodity market, reinforcement learning strategy for blackjack, and monte carlo optimization methods. Prior to joining the MFE program, he worked as a graduate student instructor for the statistics preprogram course. In his spare time, he enjoys practicing sports including badminton and triathlons and is passionate about French cooking and pastry.

Lamine, Vincent



Vincent Lamine attended CentraleSupélec, where he studied statistics, stochastic calculus, economics and data science and graduated in the top 3% with a bachelor's degree in Engineering. Vincent will officially receive his Master's degree in applied Mathematics from Centrale upon completion of the Berkelev MFE program. While at Centrale, he researched an alternative to the Solow model and completed several projects using Machine Learning in Python as well as working with the hedge fund Citizen Capital to develop a quantitative ESG investing strategy. He also had the opportunity to intern as a quantitative credit strategist at Natixis Research where he helped develop macroeconomics pricing models for several fixed income products, monitored financial markets/news flows and contributed to market comments and research publications. He supported his team by developing an algorithm in R to capture systematic country risk premiums. In his spare time, Vincent enjoys playing soccer; he was the president of CentraleSupélec's Soccer Club.



Keonhi earned a bachelor's degree in financial economics and business administration with first class honors from Seoul National University. Keonhi wrote a thesis applying Reynolds number from fluid mechanics to predicting stock prices. During his military service, Keonhi spent his free time devising a computer program that analyzes 1.000 Korean stocks. After his discharge, he performed algorithmic trading using the program and made 5% monthly returns. Before ioining the Berkelev MFE program. Keonhi worked as a sales dealer at the front office of Mizuho Bank. He dealt with central banks and hedge funds, selling complex FX and fixed income products. He streamlined dealing procedures significantly by developing a computer program that calculates precise product values and forecasts maximum possible margins to win the bidding. Profits jumped by 57% using the program. Keonhi also interned at OCBC Bank where he performed research on the correlation between USD/KRW and USD/CNH and mock trading based on his research, generating a 28% annualized return. Keonhi passed the CFA Level 1 and completed Udacity's Nanodegree in deep learning. In his spare time, he enjoys playing baseball and singing.

# LI, JINYANG



Jinyang received a bachelor's degree in actuarial science with a minor in computer science from The University of Hong Kong followed by a master's degree in quantitative finance from the University of Waterloo. His undergraduate capstone project focused on policy network replication of AlphaGo, while his master's thesis investigated a reinforcement learning algorithm for portfolio optimization. As an intern at Aon and then Swiss Re, Jinyang worked in portfolio management collecting and interpreting data relative to the performance of all the in-force business in Asia Pacific. As an intern at Wells Fargo in Charlotte, his projects included building PDE resolutions using deep learning techniques, predicting stock pricing using GAN, and implementing a neural stochastic volatility model to calibrate volatility. His most recent experience was at Polar Asset Management in the risk arbitrage team where he developed and backtested multiple automatic Alpha seeking algorithms for M&A and IPO arbitrage. He also helped analyze CLO manager performance and editing pre-IPO packages to assist in investment decisions. Jinyang is enthusiastic about acting and directing and performed in several dramas and microfilms while at HKU.

# Li, Xiangwu



Xiangwu graduated in 2018 with dual degrees -- a BA in Finance and a BE in Computer Science. Prior to joining the MFE, he completed internships for 2 years. At China International Capital Corporation Limited (CICC) and TechSharpe Hedge Fund, he gained insight into trading strategy and active investment. Two strategies developed by him, a high-frequency arbitrage strategy in cryptocurrency market and a commodity-futures strategy focusing on term structure, achieved a considerably positive monthly return in the market. Xiangwu is passionate about machine learning. He not only studied AI courses in coursera and Udacity, but also worked for one year as a researcher in the Machine Learning Lab of Wuhan University. During his six-month internship at Intel, his work with sequential graph attention networks development gained recognition from the senior engineer. In his spare time, Xiangwu enjoys sports and traveling.

### Li, Yaohsun



Yaohsun earned his master's degree in electrical engineering from the University of California, San Diego and bachelor's degree, also in electrical engineering, from National Taiwan University. Fascinated by the combination of numerical methods and programming, he built two models to apply his skills in machine learning: house prices vs. various features, and the prediction of inflation in the Euro based on the one in the United States. Before entering the MFE program, Yaohsun worked as an IC designer at Oracle and Qualcomm where he designed mobile phones and server chips as well as creating automation design flows in Python and Perl scripts. As a tech lead in charge of a team at Oracle, he identified issues, resolved conflicts, provided design guidelines and motivated teammates. Yaohsun is excited to apply his considerable academic and professional experience in finance and fintech challenges. In his leisure time, he is a blogger sharing ideas about astrology. He also enjoys swimming, traveling and songwriting.

Liang, Hongyi



Hongyi earned his master's degree in materials science and engineering from Carnegie Mellon University. During his graduate studies, Hongyi completed coursework in programming languages, data structures, computer systems, and machine learning. He also participated in a master's research project that simulated the physical properties of materials using molecular simulation algorithms. Before joining the Berkeley MFE program, Hongyi worked in Tokyo as a data engineer on deep learning solutions with PyTorch for real-time action and object recognition problems. He has experience in processing data, performing unit testing and building AWS automation tools for software applications. Hongyi speaks English, Mandarin, Cantonese, and Japanese. In his spare time, he enjoys playing Go and traveling.

## Liu, Bingcheng



Bingcheng received his bachelor's degree in economics with a minor in computer science from Wuhan University where he gained a solid foundation in finance, statistics, and programming. In addition, he is proficient in many major programming languages, including Python, Matlab, R, C++, SQL, etc. Prior to joining the Berkeley MFE program, he completed multiple internships, mainly focusing on multi-factor stock investment strategies in China's A-Share Market. During his most recent internship at GF Fund Management, he worked in asset allocation and developed multi-factor stock investment strategies, some of which achieved an annual return of 20% over the past 5 years. Bingcheng also developed asset allocation strategies to construct portfolios combining multiple assets (mainly stocks, ETFs and bonds). Apart from that, he used time series analysis and regression to build an industrial prosperity model to forecast the movements of industrial indexes and implemented industry-wide allocation accordingly. Bingcheng also has experience in machine learning. He has completed projects on NLP through Coursera and Udacity. In his spare time, Bingcheng enjoys board games, epic music and playing basketball.

Liu, Haoran



Haoran received his bachelor's degree from Tsinghua University with a double major in Electrical Engineering and Business Administration. He will also receive a master's degree in Finance from Tsinghua University upon completion of the Berkeley MFE program. Throughout his studies, Haoran gained a solid foundation in mathematics, statistics, programming, electronic hardware and finance. He also developed a passion for quantitative trading. After graduation, he interned at Derivatives-China Capital, a hedge fund in Beijing. There, he was responsible for designing, testing, and optimizing CTA trading strategy signals, and finally created an intraday strategy with excellent performance. In a quantitative trading strategy contest held by Tsinghua University, Haoran and his team won second place. After developing a strong interest in AI, Haoran pursued additional coursework in the field. In his final year thesis, Haoran successfully presented a stability control algorithm based on GAN and GCN. During his junior year, Haoran was engaged in research on data mining of social networks. His work was based on CNN and Attention Mechanism, and was published in the top journal IEEE TKDE. In his spare time, Haoran enjoys basketball, tennis, photography, travel, and literature.

Liu, Yongsheng



Yongsheng obtained his bachelor's degree in Statistics from Beihang University with the highest distinction. Prior to joining the Berkeley MFE Program, Yongsheng worked as a quantitative analyst at Shennong Capital Management where he developed a Smart Beta cryptocurrency index and built a robust back-testing framework for various strategies. He also applied different machine learning algorithms and statistical models to optimize an indexing portfolio. which outperformed the CSI 300 by 8% in the Chinese A-share market. In addition, Yongsheng interned as a research analyst at China Investment Securities, where he constructed a customer churn win-back model using logistic regression and principal component analysis, with model accuracy rate at 91.57%. He also performed model optimization for dynamic risk management and framework with Monte Carlo simulated VaR at Changjiang Securities. Yongsheng passed the CFA Level I and FRM Part I exams. In his spare time, he enjoys traveling, running and singing pop songs; he is also keen on embracing new knowledge and technologies.

#### Mbele, Buhlebezwe



Bandile Mbele obtained his bachelor's degree in actuarial science with a distinction in statistics and thereafter completed his master's degree in mathematical finance from the University of Cape Town. In his final year research project with Allan Gray Investment Management, Bandile performed an analysis of dynamic hedging and its use in withprofits annuities. His master's dissertation focused on the arbitragefree interpolation of forward rates in the LIBOR market model. Before joining the Berkeley MFE Program, Bandile worked for one year at Old Mutual as a graduate trainee (junior quantitative analyst) in the asset and liability management space where he was responsible for the daily management and hedging of various index tracker funds and withprofits annuity portfolios. During the MFE. Bandile hopes to broaden his understanding of data science and leverage it with his prior knowledge of financial markets. He is passionate about helping the youth make better life decisions, which is evident through his volunteer work in K-12 education. In his spare time, Bandile enjoys watching sports (mainly soccer) and catching up with friends.

Michel, Vincent



Vincent received a master's degree in Economics and Financial Engineering from Paris-Dauphine University. He also received a dual bachelor's degree in Economics and Finance from Paris-Dauphine University and Brooklyn College. During his graduate studies, Vincent developed a strong background in statistics, econometrics, and financial derivatives. He also completed several projects in computer science including implementing an autocall pricer and other financial derivatives in C# and Python. Vincent worked as a cross asset structuring intern at Credit Agricole CIB and then at Edmond de Rothschild where he gained proficiency in the pricing of structured products. Prior to joining the Berkeley MFE program, Vincent reinforced his deep learning knowledge through Coursera and Udacity's machine learning nanodegree. While at Brooklyn College, he interned as a real estate broker during which he learned the ropes of the real estate market. Last year, Vincent was Secretary General of the Master's Association of Paris-Dauphine University. He helped to organize events and also developed his master program's website. In his spare time, Vincent enjoys playing tennis, climbing and hiking.



Yury obtained his diploma with honors in Computational Physics from Russia and holds a PhD in Quantum Chemistry. He has extensive experience as a C/C++ Software Engineer in the Russian Space Institute, Samsung, and Marvell Semiconductors. He also helped several international startups to launch smart consumer devices such as bluetooth bicycle computers and encrypting smartphone dongles. Yury is passionate about complex systems and ground infrastructure technological projects (such as the Linux Kernel where he focused on performance and security implications) and quant finance; he believes that his experience in high-loaded distributed systems will be valuable to the finance industry. In his spare time, he enjoys travelling by motorcycle.

Pandey, Silvi



Silvi received a bachelor's in Mathematics and Computing from the Indian Institute of Technology Guwahati where she studied statistics, time series, stochastic calculus, numerical and matrix methods, computational finance, algorithms and programming. She interned at the Indian Institute of Science where she worked on knowledge graph completion using representation learning algorithms. Silvi also interned at Goldman Sachs where she worked on anomaly detection. Before the MFE program, she joined the Consumer and Investment Management Division of Goldman Sachs where she created credit strategies to reduce the acquisition cost of debt consolidation and refinance products within the consumer lending business. She also built an in-house decision engine in order to replace expensive vendor decisioning platforms. Prior to that, she worked in the Technology Division of Goldman Sachs where she built a large scale analytics engine for the firm-wide email-digitization platform. She passed the CFA Level 1 exam. In her free time, Silvi enjoys participating in programming challenges on CodeChef, long distance running, working out at the gym, reading about nutrition and singing pop songs.

Pathare, Upamanyu



Upamanyu graduated with a bachelor's degree in Mathematics and Economics with honors from McGill University. During his studies, he interned at DSP-BlackRock where he developed models for fund liquidity requirements and optimal hedging strategies. Upon graduation, Upamanyu joined Analysis Group, an economic and healthcare consultancy where he developed several machine-learning and NLP algorithms for tasks such as identification of traders engaged in spoofing, identification of patient reported outcome instruments in regulatory documents, and missing data imputation using K-nearest neighbors algorithms. Upamanyu is proficient in several programming languages including Python, R, and C# and used these skills to develop an online platform to centralize data ingestion, analysis, and model deployment. He is also well-versed in economic modeling and has developed models for several cases ranging from anti-competitive practices in the airline industry to cost-benefit analysis of new cancer detection diagnostics. In his spare time, Upamanyu enjoys soccer and video games and is also a certified Open Water Scuba diver.

Peng, Xiaoyan



Xiaoyan received a bachelor's degree in Statistics and Economics from the University of Washington and has over 3 years of experience in data analysis using Python, R and SQL databases. She began her career in quantitative finance at Iluvatar Info Tech where she quantified CTA trading strategies for algorithmic trading, forecast stock prices using XGBoost and then built a multi-factor model for portfolio selection within her team. She also engaged in Fintech-focused research opportunities, eg applying Topic Modeling techniques on media articles and AboutUs pages to explore the changes in strategy of companies after they become Unicorns. After graduation, Xiaoyan interned at China Merchant Bank(CMB) focusing on purchase behavior for new credit users and as a Pre-IPO equity Investment team at Huatai Securities. Her experience has not only provided her with insights and skills, but also taught her that the financial market is not just pure math. In her spare time, Xiaoyan enjoys playing badminton, watching movies and travelling.

Pingel, Antoine



Antoine graduated with a master's degree in Financial Markets from Paris-Dauphine University from which he also received a bachelor's in Applied Economics. He most recently worked at BNP Paribas London in the Convertible Bond sales team where he had the opportunity to trade with a wide variety of clients, from institutional to hedge funds. Besides generating trading ideas on the secondary market, he also worked with the origination team providing market color, structure and pricing for new offerings. While carrying out his master's degree, he worked for the French hedge fund Boussard & Gavaudan in Paris and London, where he was an asset manager assistant. He also had the opportunity to intern for JH Darbie & Co, a boutique investment firm in New York City. Antoine is a former high level athlete in fencing who competed in World Cup and European championships. Antoine loves music and has been playing guitar for more than 20 years.

Prabhu, Aditya



Aditya earned his bachelor's degree in Mathematics and Computing from IIT Guwahati; his coursework included probability, statistical methods, stochastic calculus, and computational finance. During his studies, Aditya interned at Goldman Sachs in the Surveillance Analytics division and subsequently received a return offer. During his three years at Goldman, Aditya worked on applying machine learning and quantitative models on financial products such as Barrier Options and swaps to detect market manipulation. These models helped mitigate risks including ISDAFIX/ICE swap rate manipulation, intraday market manipulation and detecting underlier manipulation risk in Barrier Options. Aditya has also worked on implementing machine learning models such as Random Forest, Adaboost and KNN in Java and Python which can run on Goldman's Hadoop framework. His work and undergraduate coursework required skills in various programming languages such as Python, C++, Slang, R and Matlab. Aditya passed the CFA level 1 exam. His hobbies include soccer, poker, and reading.

Pramanik, Arnab



Arnab, a certified FRM, has a bachelor's degree in Computer Science & Engineering from Abdul Kalam Technical University, India, and a Post Graduate Diploma in Management from the Management Development Institute, India. An internship at RBS in Credit Risk introduced him to the credit grading process and piqued his interest in finance. At HSBC, as an AVP, he managed premier client relationships worth INR 80 MN and identified & actioned data driven strategic initiatives, that led to improvements in both qualitative and quantitative metrics for branches in Mumbai region. As a Quantitative Services professional at Bank of America Continuum India, he analyzed risk and performed due diligence for the Structured Notes Desk that helped in identifying instances of wrong Risk, Predict and Bucketed Plex calculations. He also worked on validating FX. Credit. Gamma, Cross-gamma, Jump to Default risk for Counterparty Risk (CVA) for OTC Derivatives. As part of the quantitative services Innovation challenge, he developed an automated solution using Python for Proxy Hedges for Regulatory CVA Capital computation that led to reduction in operational risk and optimization of resources. In his spare time, Arnab enjoys reading and listening to music.

#### Raveendran, Megha



Megha received her MBA with a specialization in Banking and Finance from the School of Business Management, NMIMS, Mumbai and a bachelor's in Electrical and Electronics Engineering from Amrita University. Upon graduation, Megha worked as a senior risk manager in the market risk group at ICICI Bank for four years on model validations for forex, interest rate and credit derivatives, convertible fixed income securities, counterparty credit risk, credit valuation adjustments (XVAs), treasury policy and operations and regulatory stress testing. As an intern at HDFC Bank, she performed multivariate time-series analysis on interest rates and influencing asset market variables in the Indian economy using R. During her undergraduate studies, she used Matlab to model electric power distribution systems and co-authored a paper on mitigation of electrical power quality issues using static compensators, which was published by IEEE. Megha is an FRM certified risk management professional. She is passionate about organic farming, literary writing and reading.

Rawat, Love



Love holds a bachelor's degree in Electronics and Communication Engineering from GGSIPU, India. Before the MFE program, he worked as a decision scientist for Mu Sigma, India's largest pure-play data analytics firm where he was responsible for supporting clients to make data-driven decisions. Love worked with clients across various verticals that included pharmaceutical, consumer packaged goods and airlines. He developed a framework that enabled a pharmaceutical firm to identify opportunistic drugs to manufacture or acquire. In the CPG vertical he developed a price simulator, leveraging Monte Carlo Simulation, that allowed the client to assess impact on financial metrics. Additionally, he developed a framework to optimize revenues and profit for a beverage company and a customer lifetime value methodology for a leading airline client. He led a team to automate self-service tools, analysis/prediction of credit card application profiles. In his tenure at Mu Sigma he received two spot awards and one impact award. Love passed the CFA Level I exam. In his free time, he likes to watch movies and take up new activities for recreational purposes.





Jose Regalado, CFA, FRM, obtained his bachelor's degree in Economic Engineering from the National University of Engineering in Peru. Before joining the MFE program, Jose was an analyst at the Central Bank of Peru, where he worked extensively in the development and implementation of the quantitative framework of the strategic asset allocation for the multi-currency global fixed income portfolio. During that time, he built a comprehensive forecasting model in Matlab using macroeconomic and interest rate models. This model is now used to determine the maturity and currency composition of the investment portfolio (USD 31 billion). Based on his contribution in that project, Jose was chosen to lead the Central Bank team in an international research collaboration initiative that seeks to improve existing methods to blend investor's views and market information. Prior to his work in the Central Bank, Jose was an investment strategy intern at the largest insurance company of Peru where he used econometric tools to generate investment recommendations for a multi-asset global portfolio. Jose has also taken several courses in ML financial applications in Python. In his spare time, he enjoys hiking, salsa dancing, and reading Latin American literature.

Reynolds, Renee



Renee graduated from Stanford University with a bachelor's degree in Mathematical and Computational Science. Her passion for statistics and data science led her to serve as the President of the Stanford Applied Statistics Society, where she spearheaded panel discussions featuring data scientists in industry, weekly workshops, and an Aldriven cybersecurity company tour. While working as a research assistant for the past two years at the Stanford Graduate School of Business. Renee implemented R for several projects including performing machine learning analysis on latent factor loadings associated with a restaurant choice model, and generating visualizations and correlations between fake news reading and voter turnout in the 2016 U.S. presidential election. Renee also completed four summer internships within the statistical analysis software industry, contributing marketing analysis projects, a Unix shell tool that tracks web component usage and produces cumulative statistics, as well as the first analytical report feature for a new healthcare analytics software product utilizing her self-taught SQL and SAS knowledge. In her spare time, Renee enjoys puzzles of many kinds, cooking, staying fit, and sci-fi/fantasy films/series/video games.

### Sharma, Anupam



Anupam Sharma graduated from Delhi Technological University with a Bachelor of Technology in Mechanical Engineering. During his studies, he actively traded EuroDollar and Euribor futures and secured an internship at WorldQuant as a quant researcher. After graduation, he continued to work at WorldQuant devising stat-arb macro investing strategies in different business cycles. His strategies are still being traded in the US and European markets and have generated regular profits. During his tenure at the firm, he won multiple alpha research competitions. Anupam is excited by the dynamic, fast-paced and intense nature of the finance industry and is eager to continue his career in quantitative finance. A firm believer in the concept of giving back to society, Anupam is currently a director of an NGO that provides essential amenities to underprivileged children.

Shen, Zhiyi



Dr. Zhiyi Shen earned his Ph.D. degree in Actuarial Science from the University of Waterloo. His research work includes developing a novel regression-based Monte Carlo method to solve general stochastic control problems motivated by the pricing problems of some equitylinked products, variable annuities in particular. Before that work, little was known about how to simulate the state process of a stochastic control problem without referring to the decision maker's optimal action. Part of this work was included in a paper published in Quantitative Finance. Prior to his Ph.D. studies, Zhivi obtained a bachelor's degree and M.Phil. in mathematics from East China Normal University and The Hong Kong University of Science and Technology, respectively. Zhiyi has full-time work experience as a Quantitative Associate during the quantitative rotational program at CIBC World Markets. He worked in the market risk team that developed the Internal Model Approach for capital charge calculation in accordance with the regulatory paradigm, the Fundamental Review of the Trading Book. Specifically, he worked on non-modellable risk factor decomposition for equity risk factors. In his spare time, Zhiyi likes watching NBA games, playing poker, cooking, and hiking.

Shu, Yutao

Yutao received his bachelor's degrees with distinction in Physics and Economics from Peking University. During his undergraduate studies, Yutao built a solid foundation in mathematics and programming. He also worked on projects and took courses in derivatives pricing, financial time series, and macroeconomics. Before graduation Yutao interned at 70 Capital, a Shanghai-based hedge fund where he built a multi-thread framework to efficiently search for alphas and automatically combine them by ridge regression. After graduation, Yutao interned at Everbright Securities Asset Management (EBSAM) in Shanghai as a quant researcher. At EBSAM, he worked on CTA strategies and implemented an LSTM model with Dropout to predict the price movements of the CSI 300 Index Future. In his spare time, Yutao enjoys playing basketball, traveling and reading.

Sibony, John



John holds a bachelor's degree in Mathematics and double master's degrees in Machine Learning and Financial Markets from Paris-Dauphine University. During his studies, John carried out several research projects ranging from exotic contracts pricing to stock market movement prediction. John is currently working on a research article in alternative finance to construct profitable football betting strategies using machine learning methods. Before graduation, John developed his passion for data science by interning at Kaspr as a data scientist where he implemented a sentiment analysis tool to predict users' interests. During a research internship at the Data & AI lab of BNP Paribas, he designed a LSTM neural network to detect insider trading behavior on Bloomberg chats. Before joining the MFE, John interned within the quantitative research team at Trajectoire Capital Group where he implemented derivative portfolios containing tactical adjustment strategies for hedging. He also built a user interface in Python to backtest and optimize portfolios using genetic algorithms. In his spare time, John enjoys playing soccer, reading philosophy and exploring new places to travel.

Singh, Aadarsh



Aadarsh received his bachelor's in Electronics Engineering from IIT (BHU) Varanasi. After graduation, he worked at Goldman Sachs Bengaluru as a member of the Systematic Market Making team in the Securities division. His projects at Goldman included factor based PnL attribution systems and automated market-making algorithms. He has experience working with interest rate products such as government bonds and interest rate swaps. He is also proficient in multiple programming languages including Java, Python and Slang. Aadarsh is trained in fine arts and was the secretary of the Fine Arts Club during his junior year at IIT BHU and has won awards at his inter-college level for painting and soap carving. In his free time, he likes to watch YouTube and play soccer.

Singh, Anshul



Anshul graduated with a Bachelor of Technology (Honours) degree in Electrical Engineering from the Indian Institute of Technology Kharagpur. During his studies, he interned at Barclays as a Technology Analyst on the Finance Control team and was offered a full time role upon completion. Thereafter he worked at Synopsys in the R&D division as a C/C++ programmer for two years on the Verilog Compiler and Simulator (VCS), where he received the 'Rising to the Occasion' Award for stepping up during critical customer issues and was appraised as a high performer. Anshul also earned his MBA from the Indian Institute of Management Kozhikode with a major in finance. After graduation, he worked in the data science team at Delhivery, a leading logistics company, where he built and improved volume forecasting models using advanced regression and machine learning techniques in Python and also developed a path predictor for both domestic and cross border shipments. Anshul achieved high distinction in the International Mathematics Olympiad for three consecutive years. He passed the CFA level III exam, completed multiple MOOCs in machine learning and deep learning and is passionate about the use of technology in financial markets. In his spare time, Anshul enjoys trekking, cricket and tennis.

Su, Ronnie



Ronnie Su, CFA, holds a Bachelor of Engineering degree from Beihang University and a Master of Engineering degree from the University of Toronto. He has 5 years of experience in corporate banking, treasury and risk management as a strategy and analytics professional. He has held various roles at Scotiabank, supporting derivatives trading, managing interest rate and foreign exchange risk of the firm's banking/trading books, and advising strategies to corporate lending across diverse sectors and geographical locations. Prior to his banking experience, he worked for Acuren Group Inc. as a materials engineer performing failure analysis and forensic investigations for companies across Canada and the United States. Ronnie is fond of mathematical/statistical applications in finance, and has successfully implemented machine learning methods in various projects including deposits attrition modelling, sentiment analysis on financial news, and time-series analysis for algorithmic trading strategies. Ronnie plays tennis and trains for Olympic Weightlifting in his spare time.

Sun, Yuge (Phoebe)



Phoebe graduated from INSA (French Grande Ecole) with a master's degree in Applied Mathematics. During her studies as an engineering school student, Phoebe developed a solid foundation in Partial Differential Equations, Stochastic Calculus, Time-Series Analysis and proficient programming skills in C++, Python and R. During her sixmonth internship at AXA she developed the company's new internal Machine Learning model for monitoring risks caused by natural catastrophes. She also improved the existing models by researching new algorithms such as Quantile Regression Forest (derived from Random Forest) and implemented them in both Python and R. Prior to joining the Berkeley MFE program, Phoebe interned at Société Générale in Paris as a Market Performance Analyst and subsequently received a full-time offer. She was responsible for monitoring the variation of the monthly P&L for equity derivative products using Python to handle large trading datasets and conducting analysis. Phoebe raced the 100-meter dash for more than 10 years. She thrives in a fast-paced environment and acts promptly and accurately under pressure. She's also an excellent communicator who speaks three languages fluently (English, French, Mandarin).

Sun, Yan



Yan holds a master's degree in Engineering Sciences and Applied Mathematics from Northwestern University where she completed PhD core sequences in numerical methods and mathematical modeling. With a secondary field in financial economics, Yan also gained knowledge in econometrics, predictive analytics, monetary policy and Macroeconomics. Yan earned a bachelor's degree from Hong Kong Baptist University where she studied applied mathematics and minored in finance. Her honor's project focused on numerical methods for path dependent option pricing. Yan is highly proficient in computational and statistical methods, she has a good command of Python, C++, MATLAB, R and kdb+/q. Upon graduation, Yan joined the Bank of China Global Markets team as an interest rate trader where she handled FX swaps and CCS daily flow trades. Yan conducted quantitative research on cross-currency swap pricing and macroeconomic research on China/US interest rates and offshore RMB markets. Yan also interned at a Beijing-based hedge fund where she researched price and volume based alpha generating strategies. She is interested in exploring investment strategies in the area of machine learning and has completed multiple online courses in AI. She passed the CFA level II exam. In her spare time, Yan enjoys practicing Muay Thai, Kendo and bouldering. She also likes singing and playing the flute.

Tang, Ruobing



Veronica Tang, CFA, graduated from the University of Hong Kong with dual bachelor's degrees in Economics and Finance. After graduation, she joined BlackRock as an equity trader, where she was responsible for trading execution across active, passive, fundamental and quantitative funds. Her work experience in both HK and San Francisco allowed her to develop solid knowledge of market structure in both APAC and AMER markets. Veronica discovered her passion for quantitative finance after she started to trade for quantitative funds in both cash equities and futures. She wrote Python code to analyze trading costs to inform her algo tactic selection decisions. She also worked on trading research projects with a focus on optimizing usage of liquidity under different closing mechanisms around the globe. Prior to joining BlackRock, Veronica interned at Bank of America Merrill Lynch with a rotational program covering equity research sales, events sales, and FX options trading desks in Hong Kong. In preparation for the Berkeley MFE Program, Veronica received training in machine learning using Python through Udacity and Coursera. In her spare time, Veronica enjoys board games, playing keyboard in her band and practicing yoga.

Trinidad, Edward



Edward Trinidad worked as a fixed income trader at Metrobank & Trust (Philippines) for three years, primarily covering Corporate and Sovereign Credit (Asia Investment Grade and High Yield). During his time as a trader, he used time series analysis on credit spreads and US Treasuries to aid decision-making. He is skilled at anticipating the impact of macroeconomic developments on global rates, and managing principal risk exposure in fast-paced markets. He contributed to his team's profitability across shifting interest rate regimes, and automated Excel-based processes. Prior to this, he worked at HSBC, in FX Sales & Trading and Credit Analysis, Outside financial markets, Edward used Python to analyze inventory and pointof-sale datasets for retail companies to develop more optimal ordering systems. Edward graduated from Ateneo de Manila University, majoring in business management, focusing on decision science. An avid learner, Edward has also completed coursework in econometrics, deep learning, and machine learning. Upon completion of the Berkeley MFE, Edward aims to use his skills in trading and data science for quantitative trading and asset management. His interests include credit factor investing, pairs trading strategies, statistical arbitrage, and market making; he spends his spare time following developments in horology and basketball analytics.

Tripathi, Vishal



Vishal graduated with a bachelor's degree in Chemical Engineering and a minor in Finance from BITS Pilani, where he developed a strong foundation in mathematics, financial derivatives, trading and entrepreneurship. His internships and academic projects helped sharpen his technical acumen in machine learning, statistics, and programming. Upon graduation, Vishal joined the quantitative research team at J.P Morgan's Macro Investable Indices desk. With trading and structuring, he developed structured index products on commodity risk premia strategies while building an expertise in generating alpha through carry, momentum, value and volatility. He went on to design an algorithm simulation and scenario framework for proprietary JP Morgan cross asset platform. As a commodities desk quant, Vishal undertook the SR 11-7 agenda to document and improve the commodity pricing models while implementing the model risk infrastructure in python. As an additional responsibility, he also developed a systematic framework for greek estimation for hedging across trading desks. Vishal has passed the CFA level 1 exam. In his spare time, he likes discussing international politics and enjoys cycling.



Eric received his bachelor's degree in Mechanical Engineering from MIT. After graduation, Eric worked as a systems engineer at Innovative Defense Technologies (IDT), a defense subcontractor. There, he was involved in the company's process to advance machine learning opportunities within the company, leading to over \$1.5 million in funding awards from multiple Small Business Innovative Research awards. Eric developed a containerized real-time messaging solution with modular neural network training and inference implementations in Python to support real-time analysis of combat system data. He also contributed to improving image classification performance of radar images by 50% through the implementation of computer vision and machine learning techniques. For his contributions, Eric was recognized with IDT's Innovation and Excellence award on two separate occasions. He was also selected into and received leadership training with former major general Vander Hamm. In his personal time, Eric enjoys traveling and experiencing different cultures to continuously gain new perspectives.

Vardanyan, Garik



Garik graduated with a bachelor's degree in Economics and minor in Data Science from the National Research University Higher School of Economics. During his undergraduate studies, he interned as a market and structured risk analyst at Société Générale Group - Rosbank in Moscow. There he developed a fixed income market liquidity model based on machine learning and helped to automate internal credit rating processing and analysis. Last year, Garik worked at Laboratory of Sports Studies as a research assistant. His work focused on modelling soccer teams' calendars. Using data analysis and clustering methods, he produced a report on the link between calendar congestion and team performance. Prior to joining the Berkeley MFE program, Garik completed deep learning specialization and several courses in C++ through Coursera. In Udacity's Machine Learning Engineer Nanodegree capstone project he examined the performance of different types of recurrent neural networks on forecasting daily and monthly time series data. Garik passed the CFA Level I exam. During his spare time he enjoys travelling, playing soccer, and watching movies.

Vontela, Shreya



Shreya Vontela holds a bachelor's degree in Electronics Engineering from BITS Pilani and an MBA with a specialization in finance from the Indian Institute of Management in Lucknow. Before joining the Berkeley MFE program, Shreya worked as a quantitative research associate in the wholesale credit modelling team at JPMorgan where she was responsible for building the loss given default model and coordinated with other teams to submit the expected loss forecast for the CECL and CCAR review cycles of JPMorgan. She and her team built a python-based discount factor and net charge off prediction model which helped enhance the accuracy of expected loss forecast. While in the MBA program. Shreva interned with Goldman Sachs in their asset management division where she served as pension fund advisor of a \$2B AUM client in a multi-asset class investment strategy team. Prior to her MBA, Shreya worked as a python developer with Bank of America in the OTC derivative trades settlement team where she was responsible for building an orchestrator on quartz framework (BofA proprietary framework) used to streamline the data processing of derivative trades. She received a gold award for her contribution in developing a framework for realtime trade data settlement and reconciliation of global equity and forex derivatives in BAML. In her spare time, Shreya enjoys painting and mentoring her college juniors through the alumni association at BITSAA.

Wang, Wenqiang



Wenqiang will officially receive his master's degree with a major in financial engineering from Tsinghua University upon the completion of the Berkeley MFE program. He has already graduated from Shanghai University of Finance and Economics with a bachelor's degree in Economics. As an intern at Bosera Funds, Wengiang studied the correlation between macroeconomic indicators and assets (stocks. bonds, futures) and utilized the results to further develop the firm's asset allocation strategy. Wengiang is passionate about quantitative fields and the application of the latest techniques to the financial market. He has constructed the Named Entity Recognition model (BiLSTM-CRF) based on PyTorch to extract information from goodwill impairment announcements of public companies during his internship at PingAn Technology. The exposure to both investments and technology helped him develop market insight, as well as practical skills like Python programming, time-series analysis, and mathematical modeling. Wengiang passed the FRM Level II exam. In his leisure time, he enjoys jogging and traveling.

Wang, Zoey



Zoey spent three and half years working as a model validation quant associate at S&P Global Ratings in New York, where she was responsible for conducting quantitative research, developing benchmark models, and performing implementation- and back-testing. She gained experience in fixed income securities and credit derivatives. She researched, examined and tested various models used for credit analysis of various asset classes and bond issuances. She developed a neural network model in Python for the U.S. Residential Mortgage-Backed Securities (RMBS), she also helped build an automation tool to improve the workflow efficiency. Zoey is enthusiastic about learning and researching new algorithm trading strategies. In her spare time, she enjoys reading books and traveling. Zoey obtained a Master of Science degree and a bachelor's degree in Finance.

Wei, Conghui (Wendy)



Conghui received her master's degree in Statistics with distinction from the University of Hong Kong, where she specialized in Risk Management and Data Analytics streams. During her studies, she conducted research in binary classification with unbalanced datasets. Using Logistic Regression and various Machine Learning algorithms, including Random forest, GBDT, Light GBM and SVM, she applied ML algorithms to real-world applications to help banks predict customer default probabilities. Her outstanding academic performance was merited with Subject Excellence Awards, the Lifelong Learning Prize and a Hong Kong SAR Government Scholarship. At HSBC Group in Hong Kong, Conghui worked in capital management focusing on group finance transformation projects. She helped develop logistic regression models using SAS and Python to estimate PD and LGD for credit risk RWA calculations, visualization as well as diagnose issues in user acceptance testing. Conghui is a certified FRM, HKICPA, and has passed CFA Level 3. She is interested in machine learning and portfolio construction. In her leisure time, Conghui enjoys reading, swimming and exercising.

Wei, Jingtian



Jingtian Wei received her Ph.D. degree in Economics from The Shanghai University of Finance and Economics, and worked as a visiting scholar in Duke University. Her thesis focused on spatial econometric models related to how institutional varies may influence on innovations and its spillover effect and was published on the top Chinese economic journals and forums. Upon graduation, she interned at Haitong Securities as a quantitative researcher, developing macro strategies that modeled the impact of rate and tax changes on Chinese stock prices with Python. She then interned as a data scientist in the CME group where she was responsible for designing statistical experiments to test the data patterns and modeling the behavior of high frequency data from trading systems with Python and R. She also worked as a writer for a Chinese economic think tank. She co-wrote the books Chinese Industrial Development Handbook from 2015-2019 continuously. Her research interests focus on macroeconomics, political science, and mathematical modeling In her spare time, Jingtian enjoys hiking, playing the piano, and calligraphy (member of the Shanghai Calligraphers Association).

Wu, Siyi (Cecilia)



Cecilia attended the University of Toronto, where she graduated with honours in Applied Science with a major in computer engineering and a minor in engineering business. She completed in-depth courses in math, programming, machine learning and databases. She recently passed her CFA level II exam and several data science courses. Cecilia has held responsibilities in defining system specifications, coding, analyzing data, validating results, and presenting to users at two leading financial institutions in Canada. She worked at Scotiabank Front Office Technology, where she committed to the end-to-end implementation of Initial margin regulation. She was responsible for the business analysis of an application to integrate all trade data from various systems and determine their eligibility. She also worked closely with quantitative researchers which sparked her interest in quantitative finance. At RBC, she worked at a centralized data platform where all capital markets data is stored, enriched, and normalized. Geographical limitations can never stop her, and Cecilia is a fast learner heading directly where the next challenge awaits. She enjoys pop music and EDM, performance art, and rock climbing in her spare time.

## Xu, Hexin



Hexin Xu obtained her bachelor's in Computer Science from Peking University in China where she acquired a strong foundation in statistics and quickly grew into a well-rounded programmer, especially in C++/Python. She also attended NUS where she enrolled in stochastic calculus, econometrics with R, numerical analysis, and a financial engineering seminar held by the Mathematical Institute of Oxford University. Her professional skills and quick-learning ability are embodied in internships at great companies. While working at sales & trading on the global market team at BNP Paribas, she combined FX derivative products to provide suitable solutions that satisfy variant hedging needs and presented formally to corporate clients successfully. Meanwhile, she automated the process by developing a widget that recommends the proportion of FX products for clients to hold. Working as part of an intelligent assistant team at Microsoft, Hexin built a model to predict results of football matches with ML methods which achieved high accuracy. Hexin was also a summer intern at EAI team of Morgan Stanley in Shanghai where she developed unified interfaces to extend existing systems with distributed databases using advanced features in C++. Her work was highly praised and resulted in a full time offer. In her spare time, Hexin enjoys playing tennis, swimming, skiing, and travelling.

Xu, Yang



Yang received his bachelor's degree in Finance and Applied Mathematics from Peking University where the curriculum included indepth courses in mathematics, programming, statistics and finance. In his undergraduate dissertation, he constructed VIX for China A-shares using model-free approaches and analyzed its forecastability in stock returns. Yang has both sell-side and buy-side experience. He worked as a quantitative research intern at various finance companies; his most recent position was as a quantitative analyst at China International Capital Cooperation (CICC). There, he focused on building derivatives pricing systems, monitoring risks and improving index arbitrage strategies. In the Global Markets team at BNP Paribas, Yang provided client solutions by analyzing quantitative indices and FX derivatives. He also programmed the automation of weekly performance reports. Yang also has experience in hedge funds where he was responsible for developing strategies using machine learning techniques. He has passed the CFA Level I exam. In his spare time, Yang enjoys solving Sudoku puzzles to challenge his mind and playing soccer; he was in fact a key player in his school team. He also formed an acapella group during his bachelor's studies.

Yang, Qing (Blair)



Blair received a bachelor's degree in Economics and Finance from the Central University of Finance and Economics in China. Recognized for her outstanding academic achievement at the School of Computer Science, Blair was selected to join the experimental class of Financial Science in her sophomore year where she developed solid mathematical and programming skills. During her studies, Blair led a team to participate in two mathematical modeling competitions. In one of the competitions, she constructed an optimal pricing strategy using big data algorithms to improve crowdsourcing agencies' efficiency and used cluster analysis to differentiate tasks with a very low completion rate. During her nine-month internship as a quantitative analyst at CITIC Securities, Blair constructed a market sentiment emotional index based on macroeconomics, valuation, and other factors using GDBT and Random Forest models. After graduation, Blair worked as a primary brokerage trading assistant at China International Capital Company (CICC), where she collaborated with the trading and structuring team, applied her quantitative skills to analyze the daily trading volume and established a database to record trading orders. Blair has passed the CFA Level I. In her spare time, she enjoys hiphop, jazz, urban dance, vlogging, tennis, and Chinese chess.

Yang, Zhanqi (Jennifer)



Jennifer graduated with dual bachelor's degrees in Applied Mathematics and Economics from the University of California, Berkeley. While pursuing her studies, Jennifer completed five internships in the financial sector. During her most recent internship at Guotai Junan Securities, she applied her quantitative skills to multiple projects, including developing a pair trading strategy on commodity futures, constructing web scraping for guoted prices to calculate Greeks, and developing monthly dynamic stock selection. While working as a quantitative analyst at a hedge fund. Jennifer helped the high-frequency trading team with statistical analytics. For instance, to exploit price excursions for arbitraging, Jennifer implemented multifactor and time series models in Python, substantially increasing model efficiency. Previously, during her 1-year internship at InvesTarget, a cross-border investment bank, Jennifer applied her analytical abilities to utilize valuation methodologies, conduct industry research and prepare pitch books. Since graduation, Jennifer has further sharpened her quantitative skills in machine learning, statistics, programming and mathematical modeling, and has passed the CFA Level I exam. Jennifer is passionate about traveling, yoga and cooking, and won 2nd place in the International Chopin Piano Competition.

Yu, Qinghui (Jerry)



Jerry is a passionate and detail-oriented financial engineering student looking to enter the world of quantitative investing. Before joining the MFE program, Jerry completed an honors bachelor's degree in Computer Science and Financial Economics from the University of Toronto, where he studied under some of the leading researchers in deep learning. Following his third year, Jerry spent twelve months as a trading floor risk analyst intern at Ontario Teachers' Pension Plan programming risk systems in C#. After graduation, Jerry implemented microeconomics models in Python for the currency group at Bank of Canada as a research assistant. His contribution regarding demand for payment methods resulted in a working paper that fed into the bank's official recommendation for a central bank digital currency. Jerry is an avid traveler who once lived in seven different cities over the course of a year. In his spare time, Jerry likes playing basketball and badminton with his friends, exploring the cities around him, and trying all the iced coffee he can get his hands on.

Yu, Qijun



Qijun obtained his bachelor's degree in Applied Mathematics with a minor in Economics from the University of California, San Diego, where he took courses in probability and statistics, numerical analysis, and stochastic processes. During his studies he interned at Alpha Squared Capital as a quantitative analyst. Using Python, he helped preprocess and clean the data of stock trading records as well as analyzing the relationship between slippages and other factors. He also worked at 70 Capital in Shanghai as a quantitative strategist, where he developed several daily low frequency stock alphas in C++ based on cutting-edge factor ideas from research papers by Guotai Junan Securities and Haitong Securities; three were successfully adopted by the company's stock factor database. In his spare time, Qijun enjoys off-road cycling, radio control model cars, and urban photography.

Zhang, Bohao



Bohao obtained his bachelor's degree in Physics from Peking University, where he built a solid foundation in numerical methods and programming. He developed a risk management model for assetbacked securities using Monte Carlo simulation in C++ during his internship at China International Capital Corporation. Before joining the MFE program, he pursued his master's degree in Finance at the University of California, San Diego, and graduated top in his class. At UCSD, he assisted professors in a research project on the valuation method for capital calls in PE funds. For the project, he created a mean-reverting stochastic model to simulate the uncertainty of future cash flows in PE funds and estimated parameters with empirical results. Bohao also completed a three-month internship as a quantitative analyst at Alphacore Capital, an asset management company in San Diego. He was responsible for neural network models in Python to predict betas of mutual funds and ETFs under different market conditions. In his spare time, Bohao enjoys playing the piano which he began practicing from the age of four.

Zhang, Shimai



Shimai obtained her bachelor's degree with a major in Mathematics and Applied Mathematics from Sun Yat-sen University which included extensive training in math and coding (Python, R, C++ and Matlab). Having developed a passion for derivatives trading, Shimai focused on quantitative futures trading strategies while an intern at Derivatives China Capital, posting an 18% gain over five years' backtesting. At GF Securities, she successfully built a customer classification system by KMeans++ and other models in R. At SWS Research, Shimai applied data processing and visualization skills, and used numerical methods such as Newton Raphson to compute bond yields in Python. In her spare time, Shimai enjoys playing pipa, a traditional Chinese instrument. She is also a fan of board games and escape rooms.

Zhou, Han



Han earned a bachelor's degree in Economics with a major in Finance from Wuhan University. Before attending the MFE program, Han completed several quantitative internships. At Huatai Securities, she focused on index timing strategies and constructed multiple timing strategies of Shanghai Composite Index (SCI, a market index) from various perspectives, such as technical indicators, market sentiment indicators and market consistency indicators. At the most recent internship at GF Fund Management, she exploited CTA minute timing signals mining strategies for commodity futures with technical indicators and time-series indicators based on Generic Programming. She performed data cleaning, improved several function sets and applied overfitting tests. In addition, Han studied fundamental research methods and built a quantamental model. Han also completed deep learning specialization and machine learning courses. In her spare time, Han enjoys cooking, movies and traveling.

Zhu, Haotian (Jerry)



Jerry graduated with a first-class honors bachelor's degree in Finance with minors in Statistics and Applied Mathematics from Hong Kong Baptist University. During his junior year he was an exchange student at Stanford, where he advanced his knowledge in computer science and mathematical finance. Jerry interned in the global risk analytics department at HSBC, where he modeled counterparty credit risk exposure and risk-not-in-VaR for reporting. Additionally, he implemented machine learning models to classify suspicious activities. He also interned in the security financing and Delta One team at Societe Generale, where he monitored expected repo and dividends for risk management and researched the impact of China southbound flow on Hong Kong stocks. Before joining the Berkeley MFE program, Jerry worked as a quantitative researcher at CQ Capital, where he utilized various data to build predictive statistical models for China Ashares' equity price movements. As a personal project, Jerry built an intraday trend-following trading framework using feature engineering techniques and machine learning algorithms. The framework was deployed on cloud servers for live trading and generated an excellent out-of-sample performance. Aside from work and study, Jerry enjoys playing poker and working out.

Zhu, Yvonne



Yvonne graduated summa cum laude from the University of Southern California with a bachelor's degree in Applied Mathematics. She interned and then worked full-time as a data governance analyst at Ares Management where she used Python to automate multiple reporting and surveillance processes for Operations, Performance, and Structured Products teams. She also launched an NLP project analyzing comments in the reconciliation system and presented insights to the Head of Operations. During her studies, Yvonne worked as a research assistant at the Information Sciences Institute, where she conducted factor analysis and utilized various class balancing and deep learning models in search of data preprocessing methods that eliminate bias in machine learning. She inaugurated the first Boeing Data Science Competition at USC and led her team to win the Judges' Choice award at ASA DataFest. Yvonne is passionate about using mathematics, data science, and powerful data visualization to solve problems. She passed the CAIA Level 1. In her spare time, she enjoys running, cooking, and performing tea ceremonies. Persevering, flexible, and eager to take initiatives, Yvonne is ready for her next challenge in the world of quantitative finance.