AiThority Interview with Mark Sears, Founder and CEO at CloudFactory

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Know My Company

How do you interact with AI in your everyday life?

In my personal life, I'm using <u>AI</u> as many consumers do – to search the internet, research products, navigate the roads, and book travel, for example. AI isn't ubiquitous yet, but as you know, anyone with a smartphone is using AI, even if they aren't aware of it.

I'm a Computer Scientist, so I've watched the early AI that has been around for decades. The last few years have seen interest and investments in AI take off, driven by <u>Deep Learning</u>, faster processors and more data.

We take great interest in AI at <u>CloudFactory</u>, where every day our teams label the training data that powers <u>Machine Learning</u> (ML) and AI solutions around the world. We've worked on 150+ AI projects, helping our clients clean and structure the dirty data that makes AI development possible.

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How did you start in this space? What was the idea behind founding CloudFactory?

I've long been interested in technology and eager to make a positive difference in the world. My wife and I began our CloudFactory adventure in Nepal when we met skilled locals who couldn't find jobs to match their skills and had to travel abroad, away from their families, to find work. We saw first-hand that talent is equally distributed around the world, but the opportunity is not.

That realization began our mission to connect one million people in the developing world to meaningful work in the digital economy. We've grown from our humble beginnings, when we were training three young Nepali developers, to 325 full-time staff and 4,000+ cloud workers on four continents.

What are the unique data needs of companies applying AI and Machine Learning?

The "race to usable data" is the chief problem facing AI development, according to research by analyst firm <u>Cognilytica</u> (2019). On average, 80% of AI project time is spent on datarelated tasks like labeling, cleaning, and <u>augmentation</u>. As companies around the globe work to deliver AI breakthroughs, they are faced with a common problem: data must be uncovered, accurate and structured to test and validate high-performance ML models.

So they need skilled labelers who can work in a variety of tooling environments and deliver high accuracy, speed, and consistency. That's what we do at CloudFactory. Our cloud workers perform tasks such as labeling objects in photographs or text.

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How do you differentiate CloudFactory from other similar service providers?

Our primary differentiators are high quality, our expertise in digital work and tooling flexibility. Our teams are managed and operate as an extension of our clients' teams.

We apply technology to perform the work and provide a closed feedback loop between cloud workers and client teams. This gives our clients the agility to improve their workflow, processes, and tools over time, which we've found is critical in AI development. We also don't lock clients into using a labeling tool, so they have the freedom to use or build the tools that work best for their AI use cases and workflow. Our cloud workers can use virtually any tool.

We pay workers by the hour, which we have found results in higher quality work for our clients. Our subscription pricing model makes it easy for clients to scale their work up or down, based on their needs.

How does CloudFactory work for both Machine Learning and Data?

We built CloudFactory's WorkStreams platform, and we have a team of engineers who maintain it. Our clients use it to track metrics on the productivity of their labelers and the quality of the work.

WorkStreams put our clients in direct communication with their labeling teams, which is critical in AI development because as you build, test and validate your models, there are plenty of task iterations in the experimentation process. That closed feedback loop makes it easy for our data labelers to incorporate iterations quickly into the workflow and train other team members on new rules.

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We recently expanded our WorkStreams to make it easier for our clients to tailor their workforce choices based on their AI use case and their needs for speed, accuracy, and quality.

CloudFactory works with almost all facets of Artificial Intelligence. How difficult is it to find professionals that fit the bill?

We look at this from two angles: our cloud workers and our full-time employees.

We have developed a workforce strategy that we have found to be effective in attracting talent and important for the high-quality digital work we provide to our clients. The combination of our small-team approach, training, and infusion of our corporate principles results in workers having a greater passion for and engagement in their work. We also provide workers flexible scheduling options, so they can make time for education, family, and other commitments.

As part of our commitment to the communities where we work, we've launched digital skills learning initiative in Africa, in partnership with <u>Safaricom Foundation</u>. We want to give young people in Kenya the foundational digital skills they need to work in the growing tech industry, especially in Sub-Saharan Africa, where unemployment is a big challenge.

Our full-time team includes a deep bench of expertise in everything from engineering and data science to sales and marketing. When it comes to finding high-quality technical talent, we encounter similar challenges as most other companies. Our impact mission – to create meaningful work for people in developing nations – attracts many of the people who work with CloudFactory.

We are intentional about creating and supporting opportunities for workers who seek to grow their professional or leadership skills, whether they're a full-time employee or a cloud worker. That includes self-directed learning, the training we provide to workers and networking within the larger community.

Which industry problems does CloudFactory specifically want to solve?

We solve the problems for a growing number of AI developers who are encountering the need for a reliable workforce with domain expertise and high standards for accuracy to process the big data that feeds AI.

Companies want to use their resources strategically, so they don't want their data scientists spending the majority of their time doing the tedious, time-consuming work of data labeling. A growing number of companies are using in-house staff, freelancers, contractors and gig workers to get this massive amount of data work done. We are seeing an increasing demand for high-quality data labeling as ML models continue to proliferate.

Could you discuss a recent use case where CloudFactory helped a business resolve a critical problem?

<u>Ripjar</u> is a company that uses ML to support financial crime analysts in identifying client risk. Our workforce strategy supports the delivery of consistent, accurate data, which has reduced their need for rework. That high quality at scale makes it possible for them to provide augmented data analysis to clients using <u>Natural Language Processing</u> (NLP).

<u>Embark</u> creates self-driving commercial transportation solutions. Video annotation for computer vision requires especially high accuracy, and our workforce solved for that. Our closed feedback loop with labelers has accelerated the speed of critical process iterations.

<u>Ibotta</u> is a cash-back rewards app that large consumer brands use to showcase popular products. Our teams transcribe and verify the data on consumer receipts. In the first quarter of our work with them, we achieved a 15% increase in accuracy and a 50% decrease in processing time compared to our benchmarks.

How do you consume information on AI/ML and related topics?

Y Combinator (<u>http://news.ycombinator.com</u>) is my primary launch point for technology and Al-related news.

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What makes deploying AI so hard?

In short, AI development requires massive amounts of data wrangling. Most of the data being generated today isn't structured, meaning it isn't ready for ML algorithms to consume it. Getting clean, accurate data for ML is a challenge because it requires sharing information accurately across platforms, devices, and formats that are not well integrated. Most systems also require the use of manual data entry, which can introduce human error when the process isn't managed closely.

The tech industry has long used the phrase "garbage in, garbage out," and it's true with AI. The system will only be as good as the data that feeds it. That's why companies are increasingly turning to data labeling providers to ensure their AI systems are trained on high-quality data.

Where do you see Al/Machine Learning and other smart technologies heading beyond 2025?

Al will become more common in the workplace. As more businesses adopt AI, workers will be assigned to the creative and subjective tasks best performed by people, and AI will take on complex data analysis tasks more suited to machines. People will continue to play important roles in the development of high-quality AI systems and the success of the augmented workforce that combines people and technology to get work done.

We're also starting to see AI interact more naturally with people. Look at Google's release of Duplex, for example. The digital assistant sounds strikingly human but still relies on people to teach the machine how to understand language, which is rife with nuance and subtlety. Today's solutions can't carry out natural conversations without Deep Learning, and developing those systems requires human expertise. We anticipate organizations will continue to make strides with NLP that will expand the scope of AI's potential.

What technologies within AI and computing are you interested in further beyond what your company currently works in?

We're starting to see more companies pursuing Machine Learning in the area of perception, to predict intent. This is a fascinating application of Deep

Learning that requires massive amounts of structured data even to begin to build a model that can predict intent.

For example, a computer vision algorithm trained for perception can predict whether a pedestrian approaching an intersection will wait for oncoming traffic or attempt to cross the road. We work today with some companies that are developing perception models, and we expect to see interest in building those models increase in the coming months.

What's your smartest work-related shortcut or productivity hack?

When I have work that requires focus, I lean on the Pomodoro technique, which typically involves a 25-minute burst of intense work, followed by a five-minute break.

We use the same technique with CloudFactory's CloudWorkers. Our WorkStream browser guides workers through their tasks using the Pomodoro technique. Four Pomodoros in succession form a set, and workers take a longer break between sets. We've found this technique results in higher quality and more productive work because it reduces the impact of internal and external disruptions.

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Tag the one person in the industry whose answers to these questions you would love to read.

<u>Martin Goodson</u>, Chief Scientist and CEO of Evolution AI. Martin is also the Chair of the Data Science Section of the Royal Statistical Society (RSS), the professional body for data science in the UK.

Thank you, Mark! That was fun and hope to see you back on AiThority soon.

- About Mark
- <u>About CloudFactory</u>

Mark Sears is CEO and Founder of CloudFactory, where he combines technology and cloudbased workforce to help companies of all sizes get disruptive technology solutions to market fast. Mark is driven by his passion for people, business and technology, as he provides companies with a dedicated team of highly skilled data workers that complement their own teams and perform the tasks they don't have the capacity to handle.



CloudFactory is a global leader in combining people and technology to provide a cloud workforce solution for data labeling. Our managed teams have experience with 150+ AI projects and can process data for Machine Learning and core business functions with high accuracy using virtually any tool, even the ones you build. As an impact sourcing service provider (ISSP), CloudFactory creates economic and leadership opportunities for talented people in developing nations. Trusted by 140+ companies, we annotate data for 11 of the world's top autonomous vehicle companies and process millions of tasks a day for innovators including Microsoft, <u>Drive.ai</u>, Ibotta, and nuTonomy. We're on four continents, with offices in the U.K., U.S., Nepal, and Kenya. To learn more, visit <u>www.cloudfactory.com</u>.