THE FUTURE OF TECH
IS NOT ABOUT WHAT
OR HOW
BUT WHO.

RESILIENT CODERS ECONOMIC IMPACT REPORT 2019

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Thanks to Saadia Sumrall & Ellie Nguyen for all of the photos of people.
Thanks to Andy Laub for the photo of the Marriott Custom House clock tower.

To our friends and allies,

When I sat down to write last year's version of this letter, we were peering out over the horizon with an audacious goal for 2019: we wanted demand for our students to outstrip supply. We needed to be flooded with good, full-time and salaried job offers before expanding the organization to meet that demand. Resilient Coders will only grow when it can do so equitably, and **that means high-growth, automation-resilient jobs for our graduates, and nothing less.**

We smashed that goal. Of the first two cohorts, nearly all of our graduates found a job within weeks of Demo Day, which is our showcase event at which our students present their work to employers. This was the year that we started getting job offers even *before* Demo Day, with several grads getting more than one. Our average salary remained solidly in the $90,000 range, with our median at $104,000.

From this position of strength, we've doubled down and invested in the program. We've hired a second Expert in Residence, to support our students' learning. Our landlord, the CIC, has heard our call and has scaled their sponsorship to match our vision. We've moved from one classroom at the Boston CIC to a bigger one in Cambridge. And we've lengthened and strengthened the bootcamp itself, from fifteen weeks of paid learning to twenty.

The story's not yet written. We've hit the ball out of the park but haven't yet won the game, and 2020 already promises its own set of challenges. The year began with a hiring freeze and layoffs at our biggest employer partner. And then COVID-19 hit. We're all contending with one of the biggest global pandemics in recorded history, and the ensuing economic fallout.

We have reason to be optimistic through turbulent times. Resilient Coders is now stronger than it has ever been. Our 2020 grads will be the most prepared we've ever had. And I have the privilege of spending every day with the greatest teammates in the world, each of whom is personally committed to matching our students' sense of urgency. We see every day as a renewed opportunity to be resilient. It's a gift, and we accept.

One of our 2019 students wore a shirt on which were written these words: *I am my ancestors' wildest dreams.* This, to us, is worthy of every last drop of sweat that we've shed (and there have been gallons). We'll take that fight. And once again, I invite you to join us in this fight as well. There's room in our house for everyone. Let's all of us Be Resilient.

Onward.

David Delmar Sentíes
Founder, Executive Director
Resilient Coders
david@resilientcoders.org

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Vonds, an alum of the bootcamp, wins the "git commit" award for his dedicated mentorship. Today, he codes at Salesforce.

Economic Empowerment

We live in the city with the greatest income disparities in the entire country. And it's racialized. The median household net worth of a white family in Greater Boston is $247,500. The median household net worth of a black family is $8. Not $8,000. Eight dollars.

We need to ask ourselves as a society whether this imbalance of power is legitimately earned, as is a common narrative. That's to say: Are white people working thirty one thousand times harder than black people? Or is there a deep injustice at work in our city?

The situation is about to get much worse. The Obama Administration, in its twilight, released a report asserting that 83% of jobs that pay $20 or less are at risk of automation. These are the jobs on which too many people in our economically vulnerable neighborhoods depend. What happens to people -- and entire neighborhoods -- as those jobs continue disappearing?

Automation is not a new phenomenon in America. The difference today is that there exists no comprehensive effort to retrain those whose jobs are in jeopardy. College is more expensive than it has ever been. And too many employers continue to require Bachelor's degrees for jobs that do not require Bachelor's degrees to perform (including software engineering).

The Resilient Coders solution is part us, part employers: we will continue to identify and train talented individuals as software engineers. We need our corporate allies to identify and remove the barriers in their recruitment processes. It's about progressive training practices, and progressive employment practices. This is coalition-building.

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WHO'S HIRED IN 2019?

Thank you to our 2019 partners!

wayfair®

Constant Contact®

Humana

PerkinElmer®

KYRUUS

WeSpire

MASSACHUSETTS MEDICAL SOCIETY

wiser

hi marley

HOLOGIC®

FOUNDATION MEDICINE

BROAD INSTITUTE

a&g allen & gerritsen

Tivoli Audio

raise

WHO ELSE HAS HIRED BEFORE?

6 River Systems
Accenture
Bison
Boston Public Schools
Boston Transportation
Boston University
Carney Hospital
City of Boston
Clarks
Cogito
Colaberry
Covered Security
Curriculum Associates

Data Collective
Digitas LBi
Everquote
Experian
FE International
Fidelity
Follain
Formlabs
Fresh Tilled Soil
General Assembly
Gravyty
Grid Unity
Hill Holliday

Homesite Insurance
Houghton Mifflin
Harcourt
Hublogix
Hubspot
Latitude Inc.
Lendbuzz
Mavrck
Mass General Hospital
Microsoft
Nanigans
O'Reilly Media
Partners Healthcare

Privy
RStudio
Sapient Razorfish
Simply Business
The Boston Globe
The Grommet
The Unitarian
Universalist Church
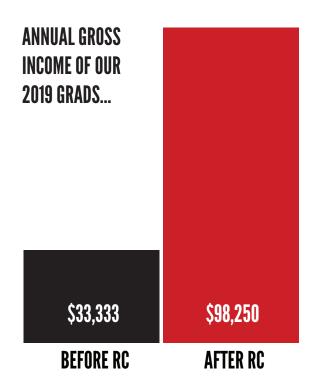Veson
Viasat
Wellington Management
Wistia

THE METRICS

LET'S DO THE MATH ON THE ROI
This is transformative change

ANNUAL GROSS INCOME OF OUR 2019 GRADS...

$98,250
$33,333

BEFORE RC   **AFTER RC**

85% OF 2019 GRADS FOUND JOBS, WITHIN ABOUT...

1mo. AVERAGE DURATION OF JOB SEARCH

$98K AVERAGE SALARY

Our alumni report that, early on in their new careers, 10% of their net income goes towards reimbursing debts or loans and 14% goes to supporting relatives. Financial wellness means taking care of yourself, your family, and then your community.

So, how does the economic empowerment of an individual lead to the economic empowerment of a community? Here are alumni expenditures, specifically in their majority-minority neighborhoods:
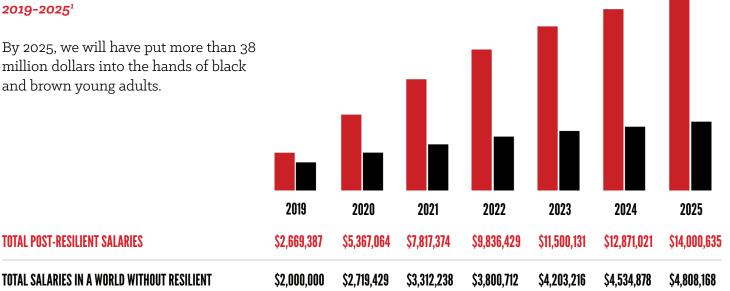
$3,101,270 BEFORE RC   **$7,787,977 AFTER RC**

RESILIENT CODERS PROJECTIONS

Total projected annual salaries per year before and after Resilient Coders 2019-2025[1]

By 2025, we will have put more than 38 million dollars into the hands of black and brown young adults.

	2019	2020	2021	2022	2023	2024	2025
TOTAL POST-RESILIENT SALARIES	$2,669,387	$5,367,064	$7,817,374	$9,836,429	$11,500,131	$12,871,021	$14,000,635
TOTAL SALARIES IN A WORLD WITHOUT RESILIENT	$2,000,000	$2,719,429	$3,312,238	$3,800,712	$4,203,216	$4,534,878	$4,808,168

This is a drastic change in the lives of our coders. If we extrapolate to the level of the community, the impact is even more compelling. Indeed, 47% of graduates who were employed in 2019 lived in one of Greater Boston's majority-minority neighborhoods.[2] If we continue on this trajectory, planning conservatively, **we expect to inject an additional $4.6 million into black and brown neighborhoods and cities by 2025.**[3]

1. For our projections, we assume the following: (1) a 3% annual salary increase, (2) 80% total retention rate, (3) 30 people placed per year, and (4) that those who remain employed work the whole year.
2. Based on 2016 numbers from the Joint Center for Housing Studies of Harvard University, these include Chelsea, Dorchester, East Boston, Everett, Lynn, Malden, Mattapan, Randolph and Roxbury.
Source: https://www.jchs.harvard.edu/boston-map#/boston-map/create-map
3. Based on survey responses. Alumni report spending about 14% on relatives and their larger community, and about 12% on local businesses.

EFFECTS ON THE ECONOMY
How much is this worth to Massachusetts?

$6,103,955
Our value added in 2019

We filled 30 positions in 2019[4], which represents more than $6 million dollars of value added to the Massachusetts economy.[5] With each placement, we are actively participating in the local economy and driving value for local employers. According to the Massachusetts Department of Higher Education, "the state's public higher educational institutions would need to double annual computer science and IT graduates to meet industry demand." It is therefore imperative that we develop "postsecondary skill development options that can evolve and scale more rapidly than traditional higher education programs."[6]
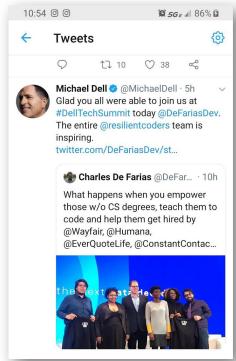
4. This excludes people who graduated in December 2019 since they started working in 2020
5. We calculated value added by dividing the share of tech's contribution to Massachusetts 2018 Gross Domestic Product by the number of tech jobs in Massachusetts in 2018 (*The State of Massachusetts' Tech Economy 2019 Report,* Mass Technology Leadership Council). This is analog to companies' cost of vacancy, which is typically calculated according to the following formula: Annual revenue from tech companies / # employees in tech companies / 220 working days (x1, x2, x3 multiplier effect).
https://www.venturi-group.com/price-vacancy-unfilled-positions-costing-business/
6. Both quotes are also from *The State of Massachusetts' Tech Economy 2019 Report,* Mass Technology Leadership Council

RISE OF THE RESILIENT ALUMNI

Dell Tech Summit

That's Michael Dell, founder of Dell Technologies, standing with a group of our alumni and family. This crew had just won a hackathon, sponsored by Dell. So Marco, Dunia, Kaia, Taye, and Charles were flown to Austin for Dell's All Hands meeting, at which they were introduced and celebrated. Sharing the stage and mugging for the camera as always are the Skull & Keyboard.

Mayor Walsh makes an appeal

Fresh off the plane from Austin, our alumna Kaia (above) was celebrated a second time. She and her classmate Raymond Ortega were mentioned by name by Mayor Walsh during his annual address to the Chamber of Commerce. At a hotel ballroom filled with members of Boston's biggest employers, the Mayor urged the assembled leaders to hire talent born and bred within our city limits. Talented young people like Kaia and Raymond, he says, are the future of Boston tech. We couldn't agree more.

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MEET TAYE

I am a dreamer. I have always been, and I always had big aspirations. One of them was to own a successful video game company, which is why four years ago I decided to go to college for video game development. I found myself bouncing around three different colleges in two years. What I learned was that college is too expensive, too long, and the returns are too tenuous for it to be the best option for me and for my struggling family. But I learned something else in that time as well: I am a programmer.

After dropping out, I got a few part-time jobs and started researching how to become a self-taught programmer. It was not easy. I took some courses online, but had to spend too much of my time working to really bring my full self to my studies. At any given time I had at least two low-paying jobs with no benefits, no security, unpredictable and long hours, with no potential for professional growth.

My parents are Jamaican immigrants who believed strongly that college is the only path to prosperity. To them, my search for alternate ways to learn to code seemed like a wild goose chase. But I had one goal in mind: I was going to be a programmer. I was determined.

Before graduating, I received two job offers, and accepted Constant Contact. I love my job.

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During my search, I stumbled across Resilient Coders. I was in awe, and honestly, in disbelief. Resilient Coders pays a biweekly stipend that was more than what I was getting paid. The only way to apply to the program was to attend their recruitment hackathons, and without a doubt, I signed up for the women and nonbinary hackathon. I went. And shortly thereafter, I was accepted into the bootcamp.

RC kept me humble. Tardiness, incomplete or less-than-perfect output, and failure to build your professional network are all ways you could get dismissed from the program. I struggled to network but I excelled in learning and applying the material. So whenever I helped my peers get their projects done and understand the material, in return they helped me build my connections.

Before graduating, I received two job offers and accepted Constant Contact. I love my job. Every day I learn something new and meet interesting and quirky people like myself. I've never felt so fulfilled in a job before. And it has brought me stability and independence. Even my parents feel a little at ease.

I've kept exploring. I attended ETHBoston where I learned how to develop on Ethereum. A couple of months later, I was one of five RC engineers who participated and won the HubWeek Dell PolicyHack, proposing a blockchain solution.

Resilient Coders is more than a coding bootcamp. It's a movement. It's a community of black and brown individuals who support one another. Most important of all, RC is an organization that symbolizes a goal: liberation for people of color. It is tackling the racial wealth gap with an equity and community mindset while producing exceptional software engineering talent.

Taye Hubbert. Class of Spring 2019

Resilient Coders is more than a coding bootcamp. It's a movement. It's a community of black and brown individuals who support one another.

Kaniah presents her work at Demo Day. Today she's coding at Wayfair.

PROGRAM
Longest and strongest it has ever been

We invest heavily in general object oriented programming principles, with Javascript as the predominant vehicle. By the time they graduate, students will have worked with simple and complex APIs. They will have worked with vanilla javascript, Node, and React, as well as MongoDB, and Postgresql. They're conducting unit tests, and sprinting in teams. The program is rigorous. We dismiss those who are not performing at the level at which we need them to be. It's a graduation requirement that students build at least one fully responsive full-stack application on their own, using the tools of their choosing. This is above and beyond their rigorous coursework. At Resilient Coders, **only the top performers graduate**. We've been accused of being the "Navy SEALS of coding bootcamps." For people of color breaking into tech, Navy SEALS is baseline.

Demo Day gives our prospective employers a sense for our graduates' aptitudes. For his Demo Day project, Anthony Salmeron developed a scientific information sharing platform that lets users freely distribute articles and accompanying pictures. It leverages the Azure cloud ecosystem to store all its content as well as using its machine learning capabilities to help with categorization of its files. User visitation logs and information are tracked to help with customizing the experience for every user. The core technologies used are EJS, CSS, JS, Node.js, Express, MongoDB, Azure Storage Blobs, Azure Cognitive Services, and ML5.js. Today, Anthony is a software engineer at Athenahealth.

OUR TEAM
Who made it happen in 2019

Board of Directors

Dunia Goncalves
Web Developer, Everquote
Resilient Coders alumna

David Mendels
Former CEO. Multiple Boards

Susan Benford
The Philanthropy Connection

Katie Stebbins
VP Economic Development
University of Massachusetts

Ester Peña
VP, Software Engineering
Travelers Insurance

Staff

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Rouguiatou Diallo
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Stephanie Castaños
Relationships Manager
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Expert in Residence
nick@resilientcoders.org

Alex Soto (as of 2020)
Expert in Residence
alex@resilientcoders.org

Muigai Unaka (2016 - 2019)
Role: Pretty much everything.
Thank you Muigai, for everything you've
been to this community.

SUPPORTERS THROUGH 2019
Individuals, corporations, and foundations

$100,000+
Cambridge Innovation Center
Cummings Foundation*
JPMorgan Chase Foundation*
Boston Private Industry Council/
Senator Kenneth J. Donnelly
Workforce Success Grant (Workforce
Competitiveness Trust Fund FY'19
Appropriation)*

$50,000+
John Hancock
The Amelia Peabody Foundation
The Boston Foundation
TUGG

$25,000+
Cabot Family Charitable Trust
Carbonite
David Mendels & Leila Yassa
Lewis Family Foundation
Liberty Mutual
State Street Foundation
United Way of Massachusetts Bay and
Merrimack Valley

$10,000+
Bank of America
Belden and Pamela Daniels
Chris Baldwin
Dave Swindell
Debra Smith Knez
James M and Margaret V Stine
Foundation
National Grid

*Multi-year grants

Susan and Ted Benford
Santander Bank
Steve Vinter

$5,000+
CarGurus
Chris and David Letts
Fish Family Foundation
Highland Street Foundation
Jerome S & grace H Murray Foundation
Jonathan Kiparsky
Juliana Castedo and Brendan Schwartz
Leo O'Donnell
Massachusetts Medical Society
SIM Boston
1434 Foundation, Inc.

$1,000+
Alex Goldstein
Adriane Musgrave and Brian Rogan
Andrew Knez
Arthur Rabe
Bob Mason
Craig Dickson
David and Elly Newbower
Eric Busse
Eversource Energy Foundation, Inc.
Intex
Jerome S & Grace H Murray Foundation
Jessica Knez
Lisa Gordon and John Treadway
Lynda and Jeff Bussgang
Matt DeSutter
Morisson and Foerster Foundation
Raquel Saxe
Rob Howard

Sam Voigt
Seth Wylie
Veson Nautical

$5,000+
Antony Donovan
Boston Estate Planning Council
Bob Gregor
Cara McGrath
Catherine Owens
Eric Klotch
Mario Gabelli Fund
Matthew Fine
Mike and Mel Foundation
Rhea and Martin Reiss
Thomas Ortega II

Grassroots
Adam Friedman
Adam Shapiro
Alaric
Amrutha Rajiv
Amy Newell
Amy Wood
Ann Solberg
Anne Shaner
Anonymous (15)
Anthony Beckford
Alyssa Hackett
Becky Kung
Boris Efroimskiy
Bridget Akinc
Charlotte Hyland Web Design
Cheryl Odesky
Christine Bath
Christy Barbee and Tom Spencer

Collective
Cynthia Andre
David Norcott
David Porter
Diana Barnett
Dominique Hurley
Dunia Goncalves
Emily Mar
Erica Mendez
Ezra Fishman
Filip Tyczynski
Francisco Rafart
Geoffrey Lawton
George Boyar
Hilary Detmold & Dan Ryan
Jack Moberger
Jason Lengstorf
Jason Seeman
Jazmine Coleman
Jeannette Guillemin
Jeff Simeon
Jeffrey Chupp
Jennifer Koonz

John Langton
Jordan Pilat
Julie Gittleman & Tom Mendelsohn
Kara Hines
Karina Lin
Katrina Sylor
Lauren Desforge
Leonidas Kontothanassis
Lex Miller
Lily Barrett
Louis DeScioli
Matt Lavallee
Matthew Bellantoni
Michael Cashe
Michael Champion
Michael Hall
Mike Cole
Mike Denomy
Mike Gintz
Mike Trogol
Naiezgi Tsehaye
New England BioLabs, Inc.
Nicole Spencer
Panorama Global Impact Fund

Pariss Chandler
Patrick Byrne
Patricia Tangney
Paula Cohen
Philip Nottingham
Pixels for Humans LLC
Rachel Quimby
Rob Kaminsky Jr.
Robert Postotnik
Roman Micevic
Samantha Casseus
Sarah McGann
Shelley Hurwitz
Standy Merizier
Stephanie Sandler
Steve Washington
Sucherman Group in Honor of Derek Haswell
Tom Dyer
Trish Fontanilla
Virginia Cole Partridge
William Aguilera
Zev Eisenberg

I have the immense privilege of having many people to thank.

Resilient Coders is predicated on a gamble that there exists a broad coalition of people, from all walks of life, who believe that we must build equitable pathways to prosperity, for the benefit of our entire civilization. Lila Watson, Aboriginal Australian artist and activist, lays this out beautifully: "If you have come here to help, you are wasting your time. If you have come here because your liberation is bound up with mine, let us work together."

And we work together indeed. We owe a debt of gratitude to our *donors*. Without folks who put some skin in the game, and substantiate values with real impact, none of this works at all. We believe that economic inclusivity means paying people to learn. Our donors make this philosophy a reality.

I'd like to thank those progressive *employers* who hire for potential over pedigree. They understand that someone's ability to pay a college tuition has nothing to do with their talent. Brilliance has a way of shining through, doesn't it? Our employers' ability to see that brilliance is critical to the disruption of society's continued inherited wealth stratification.

We have the benefit of a robust community of *mentors*, who come to the classroom and work side by side with our students throughout their learning journey. Time is our most precious resource. It says a lot about a person where they choose to spend it.

Resilient Coders has an incredible *board* of superhumans. It's an intimate kitchen cabinet of people who operate with urgency, compassion, and authenticity. Their wisdom and their unwavering support make this program immeasurably stronger than it would be otherwise. Thank you, from the bottom of my heart, Katie, David, Susan, Dunia, and Ester.

My team is the Greatest Of All Time. Every single one of them is a fighter, and it's truly an honor to stand shoulder to shoulder with them every single day. Besides being incredible at what they do, they all make me better at what I do. Muigai, Leon, Stephanie, Rougui, Nick, and Alex: I'm humbled and inspired by you all.

The difference between an organization and a movement are the *alumni*. Leon tells all of our students: "Be Harriet Tubman. When you realize your own liberation, whatever that means to you, go back. Bring one more." And they do. Without contract or written agreement, our alumni choose to return to Resilient Coders, and give their nights and weekends to the current students. They now comprise the lion's share of our mentor community. They also make up almost the entirety of our recruitment pipeline. They're bringing friends, family, and neighbors in the door, and guiding them through to completion. They have my deepest admiration. They are our "Why." But more importantly, they are also our "With." ***Thank you all.*** David.

ONWARD

Lloyd presents his work at Demo Day. Today he's coding at Oxfam.