Amy Gemme

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SUMMARY

As a mathematician, I have enjoyed a robust career spanning education, research, engineering, and entrepreneurship, including founding a tech startup. My expertise includes team leadership, software development, complex problem-solving, and applying innovative thinking to business and technical challenges. I have consulted on game design, optimization, and business solutions. I bring experience in signal processing and digital course development within the defense industry. Additionally, I hold a strong interest in cryptography, optimization, finance, and creating innovative solutions for products and businesses. With over 20 years of experience as an educator I am open to leadership roles within learning institutions. I have a proven track record of success, grit and intelligence. I am open to roles that will utilize my advanced mathematical skills and teach me new ones. I hold a TS Clearance and a patent for an algorithm that models human intentions. I am open to exploring new industries and locations.

EDUCATION

Web Development Bootcamp: UC Berkeley Extension, Berkeley, CA	Graduation	June 2019
MA Applied Mathematics: CSU East Bay, Hayward, CA	Graduation	June 2018
Pure Mathematics: University of Iowa, Iowa City, IA	Graduation	Jan 2008

PROFESSIONAL ROLES

Data Science Instructor | Credence Management Solutions LLC | Dec 2022- March 2024
In this contract role, I led a team to create asynchronous professional development courses on data science using R Studio for the Air Force Institute of Technology. Joining the project at its conception, I spearheaded the course design and development from the ground up, ensuring high-quality content and structure. Under my leadership, the team successfully delivered impactful learning resources.

Algorithm Engineer - Level 2 | Georgia Tech Research Institute | Feb 2020- June 2022
At the Georgia Tech Research Institute's Air and Space Sensor Division, I contributed to diverse projects, including optimization, natural language processing (NLP), software development, modeling N-dimensional Voronoi diagrams, developed dashboards for data visualizations. and researched the effects of wavelet transformations on image processing models. I collaborated closely with sponsors, worked within teams and independently. I wrote documentation for future developers on how to create and modify components within radar modeling software in the absence of access to source code. I was granted opportunities for professional development courses in math behind reinforcement learning and signal processing. My work was primarily done in Python, C++ and R studio.

Compliance and IT | Rock-it Cargo| November 2008- June 2012
At Rock-it Cargo I worked in the compliance department for a freight forwarding company who served the music industry around the world. My department insured shipments met TSA regulations. After a short time with the company, I was promoted into the IT department where I took on tasks such as PC set up and cleaning up with new hires and people leaving the company. I did repairs on PC's and printers, trained employees on new equipment and took courses from Cisco to be the lead on managing new equipment. This was my first professional role after my bachelor's degree.

PROJECTS

Founder of Tech Startup | Gemme Technology LLC | 2019 – Ongoing
In 2019, during my web development bootcamp, I pitched a solution to address inefficiencies in dating apps. The concept received overwhelmingly positive feedback and encouragement to move forward with development. Since then, I have taken the concept from idea to development. I assembled a team, developed proprietary algorithms, designed the system and user flow, and successfully completed a small capital raise—all without personal financial investment. The algorithm I created has been patented, validating the uniqueness of the concept. In 2023, my team and I were honored to present at the Collision Conference in Toronto, where I had the opportunity to pitch on stage. This project has been an invaluable experience, honing my leadership, project management, business and innovation skills.

Consultation on Game Design | One Stop Wellness | 2020 – 2022
I met with the founder of One Stop Wellness periodically to discuss game design options for his health-based website and application. I consulted on various modes of gameplay, how to make company challenges more competitive and developed point systems and models for various game modes

Consulting on Optimization | Cloud Crunch | 2018
I reviewed pricing for a third-party provider or AWS services to optimize their earnings. This was a small start-up who bought AWS services in bulk and redistributed them to companies moving to the cloud.

ROLES IN EDUCATION

Math Instructor | California State University East Bay | August 2015- December 2018
As a mathematics instructor at CSU, I expanded my teaching experience by delivering a range of developmental courses. I was given an opportunity to implement self-paced trial courses, allowing students to progress at their own speed while mastering key concepts. I also taught trial courses that were entirely software-based. Additionally, I collaborated with fellow professors to design curricula that ensured consistency in course difficulty and rigor across the university.

Founder, Math Tutor | Rockstar Tutoring | August 2015 - June 2018
I successfully launched, from the ground up, a tutoring business, filling my calendar by word-of-mouth referrals. I provided in-home tutoring, mentoring and advice, and prep for standardized tests, mostly for high school students attending and applying to highly competitive schools. During this time, I mastered my trade while supporting myself through graduate school and building lasting relationships with clients.

Math and Science Tutor | Aspire Education | January 2014 - June 2015
Aspire Education provided me with my first full-time tutoring role, where I worked with clients across the San Francisco Bay Area. I primarily supported students in math education but also assisted with science courses and test preparation, delivering personalized, in-home tutoring tailored to each student's needs.

Math Professor | Kirkwood College | August 2012 - December 2013
At Kirkwood Community College I taught development math courses at 2 different campuses. I taught courses in traditional classrooms as well as via remote learning for rural communities. I visited each student in person at least once and delivered my lectures through a closed television network.

Math Tutor | University of Iowa | August 2004 - January 2008
After transferring to the University of Iowa, I visited a campus department dedicated to supporting first-generation students and those with learning differences, groups to which I proudly belong. The department provided free tutoring services, and I was promptly hired as a math tutor.

Supplemental Instructor | Cypress Community College | January 2000 - June 2004
During my time as a student at a community college, I was recruited to join the Supplementary Instruction Program, where I provided an additional hour of instruction to support students in their math courses. In this role, I led small group sessions focused on homework practice and test prep, helping students improve their grades and study skills. This experience marked the beginning of my journey in education.