I currently work as a Big Data Engineer for Algebraix Data, and I love the nature of my work. I am a Certified AWS Solutions Architect and I use Amazon's Elastic MapReduce (EMR) on a regular basis to run Spark SQL applications that benchmark big data query performance at scale. My company develops micro service python API shims for Apache Spark. The product allow our customers to cache elements of complex SQL queries in order to reduce infrastructure costs at scale. I am responsible for writing bash scripts and installing our software on multiple Linux operating systems. I also build Spark SQL benchmarking applications with Transact Process Commit (TPC) data and write queries for quality assurance and proof of concept purposes. Last but not least, I am always writing Python scripts to automate the boring stuff.

Before my current job, I was working as a Quality Assurance Engineer with Grizzly, an independent creative agency located in San Diego. With a small development team, I got to wear many hats. I took on more traditional QA responsibilities, such as identifying, documenting, and reporting bugs both in test and production. I wrote unit tests with PHPUnit and configure continuous integration tools such as Werker. I also helped in the transition from the use of traditional Wordpress servers to using Docker for deployment.

My interest in engineering was sparked while I was earning my undergraduate degree in Biology. After graduating, I decided to take city college classes in Mathematics and Engineering. Based on the advice of several engineers, I decided to forgo a second bachelor's degree and engage in an online program for professional development. The Firehose Project curriculum is designed to make you think, work, and tackle challenges like a professional software engineer. I built several fully functional Ruby on Rails web applications and worked through traditional computer science algorithmic and data structure challenges. I am very grateful the Firehose Project connected me with my mentor Brendon Whateley (seasoned developer, CEO of Dark Indigo, Inc., and Founder of Kugadi) because working with Brendon has pushed me to the next level as a software engineer.

While earning my bachelor's degree in Biology from UC Santa Barbara, I worked as a Laboratory Technician for Dr. David Valentine's Marine Biogeochemistry Lab. I independently learned how to operate the lab's new Conductivity Temperature Density (CTD) and Acoustic Doppler Current Profiler (ADCP). I took a boat out into the Santa Barbara Channel with only the CTD, ADCP, and the boat captain on a biweekly basis. During the initial sessions, I needed to properly calibrate the equipment and call Teledyne RD Instruments for real-time troubleshooting. Once the equipment was properly set up, I was able to begin collecting CTD and ADCP data. Contour plots for oxygen, salinity and potential temperature were generated by the CTD software and I used MATLAB's Velocity Mapping Toolbox to analyze the raw ADCP data. I analyzed the ADCP and CTD data and shared my findings in a research report.