

tl;dr: I'm a polyglot backend engineer with a little over a decade of experience. I'm most interested in leading teams building tools and products that improve the state of the world. You can trust me to lead and grow a team that delivers and supports tested, performant, reliable software. Alternatively, you can trust me to design, build, or rewrite the "here be dragons" part of your application or distributed system.

Job Experience:

Senior Engineer & Tech Lead, Citrine Informatics, August 2018 - 2023, Remote

Backend Scala Development - Scientific Software and AI Featurization

- Led a fully remote team building APIs to reduce the ETL effort to transform unstructured customer Excel files into ML-ready vectorized data from weeks, to days, to hours.
- Architected a data system for storing and transforming arbitrary materials data (think complex recipes, for everything from perfume to steel) into featurized AI model training data in 15 minutes or less.
- Designed, built, and deployed APIs to power the React UI components of our application, maintaining robust test coverage, API documentation, and iterating quickly with PMs and UI engineers.
- Tech: Scala (Akka Actor Framework), AWS, Docker, DynamoDB, Postgres, AI featurization

Senior Engineer, Airship, January 2015 - July 2018, Remote

High Throughput, HA Backend Java API and Distributed Systems Development - Mobile Application Backends

- Rewrote a NoSQL data access layer with greater than 10B records backing an API with 50k+ requests per second. Reduced response time by ~75% with 0 downtime, request failure rate (5xx) from 1-2% to ~0.
- Rebuilt the usage-based-billing service to provide accurate unique monthly active device counts for each account (billions). Worked across the company to provide estimates of the financial impact of rolling out the new system (negative ARR), and pitch the change as necessary to reduce customer churn.
- Tech: GCP, Java, ZooKeeper, Hbase, Bigtable, Kafka, Pubsub, protobufs (2.4).

Software Developer, FightMetric, LLC, November 2012 - December 2014

Full-Stack Web and Desktop Software Development, 1 of 2 engineers - Real-time Sports Statistics for TV

- Built an autoscaling backend that scaled up requests by four orders of magnitude during events.
- Built a video-streaming system and custom desktop video playback application to enable live, simultaneous tracking of multiple athletes during events. Streamed stats to the broadcast truck for on-screen graphics.
- Tech: ffmpeg, php, ruby, Rails, javascript, QT5, MySQL, raw unix sockets, telnet.

Senior Analyst, Steck Consulting, LLC, January 2010 - June 2012

Health Care Litigation - Damages Estimation

- Wrote python scripts to verify, load, and validate terabyte scale data sets on distributed servers.
- Wrote algorithms to estimate damages for six cases being litigated by the U.S. Department of Justice.
- Cases I worked on recovered over a billion dollars for federal and state governments.
- Tech: Python, Stata, R, and SQL.

Education:

Reed College, B.A., Mathematics and Economics

Skills:

- I've been paid to write Python, Stata, R, Ruby, PHP, Java, Scala, Javascript, Qt, and even some C++.
- I've designed, shipped, and debugged APIs backed by HBase, MySQL, PostgreSQL, DynamoDB, and redis.
- I've shipped production code to AWS, GCP, Rackspace, bare metal, in containers, and in AWS Lambdas.

Other Things:

- If I'm not at work, I'm cooking, playing with my kids or working on my house. Recently cleaned and sealed our crawlspace, rewired the main floor, and sealed and insulated our ductwork. I make a lot of pizza.
- I was once a dirtbag rock climber living out of an Acura Integra almost as old as I was.