

EDUCATION:

Stanford University, Stanford, CA (9/06 – 3/08)

Master of Science in Management Science and Engineering, Operations Research concentration

Case Western Reserve University, Cleveland, OH (8/02 – 5/06)

Bachelor of Arts in Mathematics and Economics, minor in Political Science

TECHNOLOGIES:

Golang, Python, JavaScript, C/C++. Experience with AWS, PostgreSQL, Kafka, Kubernetes, Docker, Apache Beam, Spark, Redis, MongoDB, Elasticsearch, Solr, Snowflake, Temporal, Git, Chef, Linux, Unix.

WORK EXPERIENCE:

Staff Software Engineer in Clearing and Settlement, Clear Street, New York, NY (6/2021 – Present)

- Lead the Clearing and Settlement Platform team with direct reports, overseeing and scaling real time trade capture, ledger processing, and environmental testing, on AWS using Golang, Python, Kafka, and Postgres.
- Replaced the legacy transaction processing engine with a new horizontally scalable engine, increasing processing capacity to 50,000 transactions per second, and enabling the business to scale to millions of trades per day.
- Developed a data seeding framework for stress testing, simulating production loads in development environments, which enabled safer increases in trading volume and improving platform reliability.

Senior Software Engineer in Equity Funds, Bloomberg LP, New York, NY (3/2018 – 6/2021)

- Architected and implemented the primary ETL workflow for fund reference data using Python, Kafka, and Solr. Lead and managed the engineering and automated testing initiatives to migrate to the new workflows.
- Owned multiple C/C++ services powering fund analytics and reference data in the Bloomberg Terminal.
- Scaled and migrated to Linux mission critical databases which receive billions of hits per day.
- Nominated as the funds team Technical Representative to disseminate new technologies and information.

Vice President Equities Technology, Goldman Sachs, New York, NY (4/2015 – 3/2018)

- Developed an industry leading Equities/Options exchange fee calculator using Python, Apache Beam/Spark, allowing the business to accurately model exchange fees and rebates and understand how volume tiering affected marginal cost.
- Automated the invoice reconciliation process and improved reconciliation accuracy from 20% to <1%.
- Lead development on an ETE testing framework used to certify trading and messaging applications using Python, JavaScript/React, and C++.
- Actively involved in lateral and campus recruiting, improving the internal SDLC, and automated testing.

Product Manager/Lead Software Engineer, StreetLight Data, San Francisco, CA (11/2013 – 3/2015)

- Lead engineer and product manager for a SAAS product selling and visualizing geospatial data analytics, using JavaScript/Angular, Python, Flask, Redis, and PostgreSQL.
- Launched initial product, prepared product roadmaps, prioritized features, and conducted usability studies.
- Mentored developers and established the company's SDLC while collaborating with sales and product teams.

Technical Co-Founder, Cloth & Dagger, San Francisco, CA (3/2012 – 8/2013)

- Responsible for all frontend and backend development, infrastructure, and metrics, using Puppet, Python, Django, PostgreSQL, Redis, Backbone/JavaScript.
- Doubled the number of orders processed per day by creating custom inventory management software.
- Reduced returns by 30% by creating a predictive algorithm to identify optimal clothing choices.

Lead Software Engineer, Mingle Media Corporation, Palo Alto, CA (10/2009 – 10/2010)

- Second employee at a growing startup. Lead engineering team to launch and scale mingle.com
- Created fraud tools, a queuing system, automated caching layer, and analytic tools for conversion and usage tracking using Python, Django, JavaScript, and MySQL.

WORK EXPERIENCE (cont):

Freelance Web Developer, San Francisco, CA (1/2009 – 3/2012)

- Full stack Python, Django, and JavaScript web application development for corporate and non-profit clients.
- Drafted technical specs for clients, tested user feedback, and deployed consumer facing applications.

Intern, Numenta, Menlo Park, CA (6/2007 – 9/2008)

- Implemented proof of concepts for machine learning algorithms and technologies in Python and C++.
- Object recognition algorithms developed for partners successfully won in DARPA competition and evaluation.