
EMPLOYMENT

Software Engineer	Capital One – NYC	July 2018 – Present
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Architected and built a serverless Python API in Flask running on AWS Lambda to reduce maintenance and server costs relative to a standard AWS EC2 instance.

Created performance tests with K6 to handle smoke tests, load tests, and stress tests for a Scala API.

Dockerized a Scala API to ensure consistency throughout all environments and to simplify CI/CD. Upgraded a Jenkins pipeline to allow single button deployments with proper testing and blue-green deployment to minimize downtime.

Productionalized PySpark data pipeline infrastructure for ETL, pre-processing, and model-based matching stages of customer entity resolution. Customer entity resolution processes customer transaction streams and identifies business spending on personal credit cards to target potential business credit card conversions.

Software Engineer Intern	Amazon Lab 126 – Bay Area	Sept. 2017 – Dec. 2017
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Designed and developed an access control protocol for Amazon's internal Alexa device onboarding platform to allow both first- and third-party devices self-service integration with Alexa.

Created a tool to streamline the process of updating Alexa profanity filters from days to minutes.

Implemented a data staging tool with fine grained access control for Alexa device management.

This allowed different permissions for developing, testing, and deploying features on Alexa test devices.

Software Engineer Intern	Capital One – Wilmington	June 2017 – Aug. 2017
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Developed a database navigator with a Java Spring Boot backend and an Angular 2 frontend to allow customer service agents to access customers' account information with fewer clicks.

Deployed back-end to an AWS ECS cluster and deployed static frontend to an AWS S3 bucket.

Created internal tooling hosted on AWS lambda written in NodeJS and Python 3.

Front End Developer	D2Creative Marketing – Seattle	Feb. 2016 – March 2017
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Developed and maintained an automatic Google Adwords bid adjuster to drive website interaction.

Enhanced our clients' websites to adhere to responsive, mobile-first web design principles.

Migrated clients' websites to Amazon Web Services from on-premise servers.

EDUCATION

Seattle, WA	University of Washington/TESU	Sept. 2015 – Sept. 2018
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Bachelor of Arts, Concentration Computer Science

GPA 4.0, Dean's List

PROJECTS

Full Stack Sudoku – I created this project to learn FastAPI (a Python web framework for building APIs), Vue, TypeScript, as well as to get more comfortable with Docker, Docker compose, container management, monitoring services, and managing a server. It has been performance tested with K6 and can handle millions of daily users (although I will admit it doesn't receive that kind of traffic). I have it set up in Docker Swarm mode (as an alternative to Kubernetes) so I can easily add additional capacity as necessary.

Personal Blog – I write daily on my Jekyll powered Github Pages blog. It's usually about what I'm tinkering around with, but sometimes it's about traveling, reading, or cooking. Check it out – joshuaj004.github.io

Languages and Technologies

Python; JavaScript; NodeJS; Java; Scala;

Amazon Web Services including EMR, EC2, S3, Lambda, DynamoDB; Git; Docker; FastAPI;

Flask; Terraform; Ansible; Airflow; Elastic Stack; Cassandra; Agile, Scrum & Kanban; Datadog;