Olin Zhou

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Experience

Amazon — *Seattle, WA*

Software Development Engineer - Alexa Smart Properties — *Aug. 2021 - Present*

- Developed and enhanced tooling that enabled on-demand migrations for Alexa devices from legacy systems based in AWS to new systems based on native Alexa cloud architecture. Migrated 20,000+ Alexa devices spanning over 1,000 properties, such as hotels and hospitals, replacing a manual process which took 5 minutes per device.
- Empowered solution architects to facilitate different enterprise use cases by extending migration tooling functionalities such as implementing a daily retry and reporting mechanism to handle and re-migrate 2,000+ offline devices. Used Java, AWS DynamoDB, AWS Step Functions, AWS SES, and an internal distributed job scheduler.
- Designed and implemented an internal testing framework to efficiently create/delete Alexa enterprise organization hierarchies and virtual Alexa devices used by developers in end to end and load tests, saving engineers 5 hours per week, standardizing adhoc processes, and establishing best practices across the testing codebase.
- Maintained and monitored Alexa enterprise management REST APIs supporting over 50,000 rooms using Alexa devices in properties such as Disney Resorts and Wynn Las Vegas. Responsible for mitigating outages and identifying and fixing root causes, ensuring a 99.99% service up-time.

MathWorks — *Natick, MA*

Engineering Development Group Intern — *May. 2020 - Aug. 2020*

- Developed interactive tooling using Bash for use by QA engineers that automated and optimized the process of creating OpenStack instances for hosting MATLAB Docker containers, accelerating MathWorks' platform testing process by 50%.
- Implemented a web UI using React and a backend API using GlassFish and Java to display and filter 500,000+ testing jobs in MathWorks' internal SQL database based on operating systems, clusters, MATLAB release versions, and date.

Tyson Foods — *Springdale, AR*

Full Stack Intern — *May. 2019 - Aug. 2019*

- Built a full-stack cloud-native web application using React, NodeJS, and SQL to facilitate aggregation of delivery incident statistics, with impact spanning over 100,000 forms submitted per year for use by downstream data analysis and policy teams.
- Used AWS Lambda and Aurora DB for cloud deployment and scaling.
- Led biweekly meetings with clients and stakeholders to discuss project progress and requirements.

Skills

Programming Languages Java, JavaScript, Python, Bash, HTML, CSS, SQL, C++

Technologies Node.js, React, MySQL, AWS, Jupyter, JUnit

Education

Texas A&M University — *College Station, TX*

B.S. in Computer Science, Minor in Business — *Aug. 2017 - May. 2021*

Projects

Presidential Candidate Tweet Classifier — *College Station, TX*

School Project — *Oct. 2020*

- Engineered an ensemble machine learning model (KNN, Naive Bayes, Random Forest) to classify Trump's and Biden's tweets using Google Colab and Python, yielding accuracy of 98%, precision of 98%, and recall of 99%.

Stock Price Pager — *Plano, TX*

Personal Project — *Jan. 2020*

- Architected a web application with React and NodeJS that alerts users through text messages and/or phone calls based on their desired price for a given ticker.
- Leveraged IEX Cloud API for stock prices and Twilio API for user alerts.

Road Conditions — *Plano, TX*

Personal Project — *Sep. 2019*

- Engineered a web application using React and NodeJS to map predicted weather forecasts to a user's trip schedule.
- Developed a custom algorithm to calculate and indicate expected weather per 30 minute interval on a user's trip.
- Integrated with Open Weather API for weather details and Google Maps API for trip routes.