Olin Zhou
SOFTWARE ENGINEER

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Work Experience

Amazon *Seattle, WA*
SOFTWARE DEVELOPMENT ENGINEER - ALEXA SMART PROPERTIES *Aug. 2021*

- Built and maintained Alexa enterprise migration script to migrate and monitor 16,000+ Alexa devices spanning over 1,000 properties from legacy system based in AWS to a system based on top of native Alexa architecture utilizing Java, internal distributed job scheduling tool, AWS DynamoDB and Step Functions.
- Implemented daily retry and reporting mechanism in Alexa enterprise migration script to handle/migrate over 2,000 un-migrated offline Alexa devices utilizing Java, internal distributed job scheduling tool, AWS DynamoDB, and AWS SES.
- Designed and implemented an internal framework to efficiently manage Alexa enterprise organization hierarchies and virtual Alexa devices used by developers during end to end tests and load tests. Responsible for creating and deleting over 1,000 units and virtual Alexa devices.
- Maintained and enhanced Alexa enterprise management APIs serving over 20,000,000 end customers per year for Alexa devices deployed in properties such as Disney Resorts and Wynn Las Vegas.

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.
- Utilized AWS Lambda and Aurora DB for cloud deployment and scaling.
- Led biweekly meetings with clients and stakeholders to discuss project progress and requirements.

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 utilizing Google Colab and Python, yielding accuracy of 98%, precision of 98%, and recall of 99%.
- Organized meetings, established goals, and produced deliverables to lead a team of three through the process of data cleaning, data analysis, model training/testing, and deployment.

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 forcasts 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.

Discord Voice and Image Bot *Plano, TX*
PERSONAL PROJECT *Jan. 2019*

- Created a cloud based bot using Python that searches through Reddit for images/gifs and sends relevant content to users upon chat commands.
- Leveraged PRAW API for Reddit content, Discord.py to send/receive Discord messages, and AWS EC2 to host the application.