Robert Hwang

Software Engineer

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Relevant Experience

Software Development Engineer @ Amazon

May 2020 — Present | Seattle, WA

➔ Implemented and released generic Alexa voice request routing across a complex distributed system to facilitate the internationalization of Show and Tell, a camera enabled Alexa application to identify items, to multiple new locales

➔ Promoted good coding practices and code hygiene in the codebase, by rewriting unit test cases to use parameterization, greatly increasing code coverage across multiple libraries and increasing test case visibility

Software Engineer @ Attentive

March 2019 — May 2020 | New York City, NY

➔ Wrote robust, performant backend microservices, primarily in Java and Python to power the core product and integrate with the core message sending platform

➔ Communicated and collaborated with stakeholders, product managers, and designers on architecting technical solutions to complex features and product challenges

➔ Migrated a clickstream and analytics ETL system onto a distributed serverless architecture, cutting average processing time by 94%, and supporting over 2000 transactions per second, with robust error handling and incident recovery

➔ Architected, implemented, and deployed an event driven video transcoding pipeline on AWS, using S3, Lambda, MediaConvert, and DynamoDB to automate the transcoding process of uploaded MP4 files into HLS

Software Engineer @ Astronomer

August 2018 — February 2019 | Cincinnati, OH

➔ Improved the Apache Airflow on Kubernetes resource and state monitoring stack by deploying a service to communicate with the Kubernetes API

➔ Contributed an Elasticsearch log handler to the Apache Airflow open source project

➔ Used the log handler mentioned above to implement a live log streaming and search tool in the Cloud product

PROJECTS

New York Times Top News Dashboard Link

News web application built with React and the NYTimes API, deployed on Heroku

ElsaBot Link

Discord application, built using Python and Discord's API, deployed on Heroku. Logging and observability is deployed as a separate app, using fluentD as a log aggregator

Skills

Programming Languages

Python, Java

Libraries & Frameworks

Pytest, JUnit5, React

Tools and Platforms

AWS, Apache Airflow, Docker, PostgreSQL, MySQL, AWS Lambda

Knowledge & Experience

API Design, Data pipelines, Microservices, Scripting, Unit testing, ETL design, NoSQL

Education

Swarthmore College

2014 — 2018 | Swarthmore, PA

B.A in Computer Science

Minor in Biology

Awards and Recognitions

Howard Hughes Research Grant

Lande Research Award

Sigma Xi Research Society

Interests & Hobbies

Video editing, piano, music composition, running, writing, tennis, riddles and word puzzles