

Work Experience

Amazon – Software Engineer – 2023 July - present

- **Team - back-end networking team** providing a standardized communication layer across regions and across Amazon's **microservice architecture**. Specialization in monitoring and metrics for health checks, network traffic, and system performance. **Golang**-focused.
- **Project - web app** that allows any Amazon team to see their service's upstream and downstream services. **React.js**-based.
 - Wrote initial design doc and gathered feedback from teammates for iterative improvements
 - Conducted proof-of-concepts to show viability of each aspect of design
 - Held 1-on-1 demos with customers and iterated upon their feedback to further suit the app to their use cases.
- **Project - policy doc uploader** that distributes software rollout policy docs to regional endpoints to control our team's deployment of forced updates across regions. **Java**-based.
 - Set up global infrastructure to enable multi-region uploads to endpoints
 - Researched and implemented workarounds for region-specific blockers
- **Frequently Used - CI/CD, infrastructure as code (AWS CDK), AWS**
 - Provisioned resources with IaC and managed CI/CD pipelines to handle large-scale, multi-region software deployment to native AWS platforms

Hantel Technologies – Engineering Intern – 2019 July - Sept

- Designed in SolidWorks first articles of medical equipment later put into production
- Managed design history files and information organization
- Wrote protocols and procedures for equipment operation

Education

University of California, Santa Barbara

Physics B.S.

Courses at UC Berkeley

Bayesian Data Analysis and Machine Learning for Physical Sciences

Other Projects

Tab Notes Android App

I've always liked to take notes using the "outline" method, where each subheading is indented a bit more than its heading. Taking notes this way on mobile requires pressing the spacebar too many times. This notes app solves this problem by introducing a draggable vertical bar that sets the desired indent. I have scoured the Play Store and have yet to find an app that does this. Tab Notes is intended to replace Google Keep on my smartphone.

Github: <https://github.com/MarcRusli/tab-notes>. **Kotlin**-based.

LIGO Gravitational Wave Detection

Uses **matched filtering** to find hidden signals within noisy data. **Python**-based **Jupyter notebook**.

In 2016, LIGO (Laser Interferometer Gravitational-wave Observatory) detected a waveform from the collision and merger of a pair of black holes. This project aims to show that the waveform matches predictions by general relativity, confirming detection of gravitational waves.

Skills

Golang, Java, Javascript (React, Node.js), **Typescript**, **IaC** (AWS CDK), **CI/CD**, **AWS**, **HTML**, **CSS**, **UI/UX**, **Containers**