Jason Wong

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Education

California State University, Fullerton   August 2020 - May 2023

Bachelor of Science in Computer Science, Minor in Mathematics

Experience

Software Development Engineer Intern   May 2022 - August 2022

Amazon, Personalization

- Develop internal tooling with **Python** that intgrates with the **ETL Pipeline**, enabling the Customer Interests team to efficiently aggregate and convert thousands of binary labeling data into high confidence datasets to train and benchmark the performance of their machine learning models and recommendation algorithms, serving more relevant product recommendations to Amazon shoppers
- Create an **AWS CDK** application in **TypeScript** to programmatically provision and configure resources, including **AWS Lambda** functions, **DynamoDB** databases, and **IAM** users to distribute read and write permissions
- Design and implement a **DynamoDB** database to store and query labeled datasets
- Implement unit and integration tests with 100% branch and statement coverage where applicable

Frontend Developer   September 2021 - February 2022

TuffyHacks 2022

- Built mobile responsive frontend using **React (Next.js)**, primarily the landing page, promoting the event to thousands of students globally, and the dashboard, facilitating team creation and displaying live event announcements
- Design scalable and fault tolerant backend using **AWS Lambda** functions and a **PostgreSQL** database, minimizing cloud hosting fees while handling peak traffic from hundreds of users with 100% uptime and minimal latency during the event

Mobile and Backend Developer   June 2020 - September 2020

Twiine

- Built the MVP of a date and hangout planning mobile app using **Flutter**. Most notably, developed the planning and user profile view, with support for live updates when requests are accepted and profiles are updated

Projects

SWEify

Javascript, Python, FastAPI, Scrapy, Next.js

- Aggregates data from multiple job boards and curates a list of Software Engineering positions for entry level and intern job seekers
- Develop **ETL pipeline** using **Scrapy** and **BeautifulSoup** scrape and **Pandas** to transform data from job boards into a **SQL** database
- Automatically parse and extract relevant information like technologies and years of experience and filter out irrelevant listings like non-technical positions and senior roles
- Display data in a user-friendly frontend with **React** and **Tailwind**, allowing users to filter jobs based on location, salary, and more

Spotify Seasonal Playlist Creator

Javascript, Python, Flask, Spotify REST API, Next.js

- Develop a service that places liked songs into playlists grouped by seasons. Currently serving a user base of 20+ individuals
- Implement a multi-container architecture, utilizing **Docker Compose** to provision and configure infrastructure, including a **Flask** backend, **Next.js** frontend, and **SQLite** database with admin panel, behind an **NGINX** reverse proxy with SSL
- Develop and design the landing page, OAuth login flow, and user dashboard in **Next.js** and **TailwindCSS**
- Integrate with a **SQLite** database for error logging and playlist caching, minimizing API calls and monitoring error rates

Gameboy Emulator

Rust, SDL2, Z80 Assembly

- Develop a Gameboy emulator using **Rust**, implementing core functionalities and accurate emulation of the Gameboy hardware.
- Implemented key components of the Gameboy architecture, including CPU, memory management unit (MMU), graphics processing unit (GPU), and audio processing unit (APU), to provide a comprehensive emulation experience.

Spam Email Detection

Python, Scikit-Learn, Natural Language Toolkit

- Design and implement a **machine learning** based spam email classifier using **Python** and **scikit-learn**
- Train model on a dataset of labeled emails, achieving a precision of 98% and a recall of 97% with the Naive Bayes Classifier

Skills

Languages: JavaScript/TypeScript, HTML/CSS, Python, C++, Rust, Go, Java, LaTeX, Dart, SQL, R, MATLAB

Web: React, Next.js, Svelte, Figma, TailwindCSS, SCSS, 11ty, Express.js, Flask, FastAPI, Node.js, PostgreSQL, SQLite, MySQL

DevOps: Amazon Web Services (API Gateway, CDK, CloudFormation, DynamoDB, Lambda, S3), Firebase, Docker, NGINX