

Preston Young

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EDUCATION

University of California, Irvine

December 2022

B.S. in Computer Science, GPA: 3.86

Irvine, CA

- Coursework: Data Structures and Algorithms, Database Management, Information Retrieval, Operating Systems, User Interaction Software, Human Computer Interaction

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, Kotlin, C++/C

Backend: Node.js, Express.js, Flask, RESTful

Frontend: React, Redux, Angular, HTML/CSS, Figma

Databases: SQL, MySQL, PostgreSQL, MongoDB, Cassandra

WORK EXPERIENCE

Amazon (Seattle, WA)

June 2021 – September 2021

Software Engineer Intern

- Implemented **Python** module for translating threat detection rules in **Sigma**, a generic SIEM format, to the schema used in **AWS OpenSearch** (forked from **Elasticsearch**), allowing users to allocate such rules across different clusters.
- Built 2 new REST APIs for OpenSearch Alerting Plugin using **Kotlin** and **Java** to allow bulk transfer of threat detection rules to and from OpenSearch clusters.
- Researched Sigma and OpenSearch architecture to design and propose detailed solution to over 150 engineers.

Commit the Change UCI (Irvine, CA)

October 2020 – June 2021

Full Stack Developer

- Developed user dashboard using **React** to securely document internal data for Waymakers nonprofit organization, which saved over 7 hours per week of manual inventory management and volunteer scheduling.
- Architected REST API using **Node.js** and **Express.js** and stored inventory images in **AWS S3** buckets to help scale.
- Collaborated with Waymaker's representatives to design **PostgreSQL** schema and deployed database on **Heroku**.

MathWorks (Natick, MA)

January 2021 – March 2021

Software Engineer Intern

- Developed **JavaScript** API that manages settings for MATLAB web client, affecting 4 million users in 2021b update.
- Wrote unit and end-to-end tests for API using **JUnit** with 91% code coverage.
- Increased code coverage by 15% in MATLAB desktop client by adding more robust test cases to **Java** integration tests.

Formosi (Torrance, CA)

September 2020 – November 2020

Software Engineer Intern

- Developed a full stack web app using **React** to display and organize videos uploaded by wellness professionals, supporting 20+ types of professionals, 400+ videos, and 2,000+ users.
- Built REST API using **Node.js** and **Express.js** to fetch video data from **YouTube API** and store in **MongoDB**.
- Worked closely with designers to create high-fidelity **Figma** designs and develop user-friendly pages in **React**.

PROJECTS & HACKATHONS

FitLinks

<https://bit.ly/3xSSE95>

React, Chakra, Node.js, Express.js, Fuse.js, MongoDB

- Created a social fitness app to help professionals make new personal connections through working out.
- Improved match results to 95% accuracy by using fuzzy search on several fields such as industry and past companies.

Jazz Hands

<https://bit.ly/3K6ew3f>

Angular, TypeScript, Bootstrap, Node.js, Express.js, Handtrack.js, Spotify API

- Developed an app that centralizes Spotify search results and displays them in a relevant and intuitive way.
- Improved accessibility by implementing hand tracking component that used gestures to navigate and interact with web app.

Search Engine

<https://bit.ly/36ITSbY>

Python, Cython, Flask, HTML, CSS

- Created a search engine that parses >55,000 pages, returning results within 300ms and with high relevance, through using stemming, TF-IDF scores, and assigning weights to HTML tags.
- Saved >75% memory usage by splitting index into partial files and reduced query time >500% by indexing file positions.