

JONAH MULCRONE

Tacoma, Washington | +1 (253) 328-2973 | jonahmulcrone.com | jonahmulcrone@gmail.com

SKILLS

Technologies: Typescript, Javascript, Java, Python, HTML, CSS, ReactJS, Angular, Flask, Spring Boot, Firebase, Git, Github, Docker, Cypress, JUnit, Karma, PostgreSQL, SQL, AWS Lambda, pgAdmin

WORK EXPERIENCE

Software Development Intern

June 2024 – Present

Pierce County IT

Tacoma, WA

- Transitioned CLI applications for geocoding to micro web services to improve scalability and developed JUnit tests to improve overall code coverage (**Spring Boot, Groovy, JUnit, MockMvc**).
- Migrated Protractor E2E tests to Cypress E2E for an Angular application, improving and modernizing test automation capabilities (**Angular, Typescript, Cypress**).
- Expanded map tile functionality in the Pierce Application Core Library (PAC) by incorporating support through APIs like OpenLayers and ArcGIS (**Angular, Typescript, Grails**).

Software Development Intern

January 2024 – May 2024

OnyxAI

Renton, WA

- Spearheaded the development of a real-time chatbot service which connects to an AWS Lambda through a multithreaded WebSocket server (**ReactJS, Firebase Firestore, AWS Lambda, WebSocket**).
- Integrated Firebase Auth to create a user service, streamlining the registration and sign-in process, and reducing redundant API calls via Redux (**Firebase Auth, Redux**).
- Implemented dynamic routing for viewing conversation history and facilitating navigation, while utilizing UUID to ensure unique identification for each conversation (**Firebase Auth, React Router DOM**).

EDUCATION

B.A. Computer Science, B.B.A Finance

September 2019 – June 2024

Pacific Lutheran University (PLU)

Tacoma, WA

- **Coursework:** Databases & Web Programming, Algorithms, Data Structures, Data Mining, Artificial Intelligence, Discrete Structures, Data Science II, Statistical Modeling, Information Systems
- **Achievements:** Department of Computer Science GPA: **3.6/4.0** | Dean's List: **6** Consecutive Semesters

PROJECTS

Finance Tracker | *ReactJS, Flask, FlaskSQLAlchemy, SQL, Typescript, Python, Redis, Docker, JWT, NGINX*

- Leveraged Plaid API to enable users to connect bank accounts and retrieve relevant data through RESTful API calls, enhancing financial management tool capabilities.
- Constructed SQL-backed ETL pipelines, ingesting transactional data using Flask-SQLAlchemy to power a dynamic financial analytics dashboard.
- Developed frontend in ReactJS for the analytics service, creating appealing visualizations using Recharts that display financial spending behavior.

PC Part Search Engine | *Jinja, PostgreSQL, Flask, Python, Docker*

- Designed a dynamic Jinja-based frontend interface that allows users to filter and display PC part details.
- Engineered a scalable Docker environment to host a Flask application alongside PostgreSQL and PgAdmin, optimizing development workflows and enabling persistent data management via volumes
- Built a RESTful API using Flask, enabling seamless integration and real-time access to comprehensive PC component data, significantly enhancing user interaction.

Sorting Algorithm Visualizer | *ReactJS, Typescript, HTML, CSS*

- Developed a web application to assist students in visualizing common sorting algorithms.
 - Implemented efficient state management and React Hooks to control the sorting process and array generation, ensuring a smooth user experience and efficient updates to the component's UI.
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