Luke Sarausad

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Education

University of Washington Seattle, WA

Bachelor of Arts in Computer Science (Data Science Concentration), Minor in Business *Expected June 2027*

- **Relevant Coursework**: Data Structures & Parallelism, Software/Hardware Interface, Foundations of Computing, Software Design/Implementation, Calculus I-III, Introductory Programming
- **Dean's List**: Fall 2023, Winter 2024, Spring 2024
- **Extracurriculars**: Software Engineering Career Club, Algorithmic Trading Club, Open Minds Consortium Lab
- **GPA**: 3.84

Experience

Undergraduate Research Assistant September 2024 – Present

University of Washington *Seattle, WA*

- Assisted in developing mobile software interfaces for the Open Minds Consortium Lab, enabling wireless data streaming from implantable neurostimulation devices to an external mobile device.
- Contributed to creating tools that facilitate real-time monitoring and analysis of cortical and subcortical field potential activity from neurostimulation hardware.
- Designed, tested, and developed the interface using Flutter and Dart and ensured enhanced user experience and functionality for researchers
- Developed cross-platform communication system using gRPC and Protocol Buffers to facilitate data transfer between tablet UI inputs and device responses, streamlining device-to-computer data transmission

Software Engineer Intern Aug. 2023 – Nov. 2023

Mentee *Remote*

- Engineered software to integrate data from Typeform/SurveyMonkey into an Amazon DynamoDB database, facilitating the pairing of college mentors and mentees based on matching preferences such as availability and areas of interest.
- Analyzed user data stored in JSON format and developed a data pipeline to integrate various aspects of the data into DynamoDB
- Utilized Zapier for enhanced data integration.
- Gained practical experience in a startup environment, with a focus on expanding knowledge in Java and AWS technologies.

Projects

CourtFinder | *Javascript, Firebase, React.js, Node.js, Express* June 2024 – Present

- Designed and developed a full-stack web application for users to view the availability of courts at nearby public parks in my hometown
- Integrated a queue data structure to represent the parks so that an array was made up of parks where each court was represented by a queue and availability was updated in real time on the application
- Implemented RESTful API's for communication from the client and server using Express.js
- Utilized Vercel for hosting of the frontend and Render for back end hosting
- In the process of optimizing the application to propose as a tool for the Issaquah Parks and Recreation organization

Market Predictor | *Python, Pandas, JupyterNotebook* Mar 2024 – Present

- Developed a Python-based machine learning model to predict future prices of stocks and cryptocurrencies, integrating big data analysis
- Used APIs from Yahoo Finance and The New York Times to gather and manipulate datasets for model training
- Implemented an algorithm to combine the analysis of financial data and also sentiment of contemporary news articles to calculate it's impact on a given stock/currency.

Technical Skills

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, R, TypeScript
Frameworks: React, Node.js, Flask, JUnit, Express
Developer Tools: Git, Amazon Web Services, VS Code, Visual Studio, Eclipse
Libraries: pandas, NumPy, Matplotlib