Liam Rogers

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Education

Simon Fraser University Burnaby, BC
B.Sc - Joint Major in Computer Science and Linguistics Expected Graduation: 2026
Recipient of the Spring 2022 SFU Alumni Scholarship
Relevant Courses: Software Engineering, Object Oriented Design, Data Structures & Algorithms

Experience

Math and Computer Science Tutor September 2023 – Present
PD Plus Tutoring Service Ltd. *Burnaby, BC*

- Provided individualized instruction through virtual or in-person sessions to assist students in improving their grades in high school math and computer science courses.
- Developed communication/teaching skills, planning, and time management as a result of preparing and executing lesson plans for students.

Projects

Wanderer's Hub (CrackedDevs.com X Spark 2024 Hackathon) | ***React, JavaScript, TailwindCSS, Three.js***

- Developed a travel recommendation platform that leverages AI to analyze user preferences, offering personalized suggestions on travel destinations.
- Implemented Figma wireframes into a dynamic and interactive UI, incorporating engaging animations.
- Elevated the Wanderer's Hub user experience by integrating Three.js animated designs, delivering a visually stunning and interactive platform for personalized travel discovery.

Voice-Gen | ***React, JavaScript, Python, Flask, HTML, TailwindCSS***

- Engineered a voice recognition platform utilizing AI to determine the ethnic background of the speaker.
- Implemented Flask endpoints to facilitate the exchange of voice recording data between the frontend and backend.
- Enhanced the user experience by utilizing TailwindCSS, providing an intuitive and aesthetic interface.

Translink Arrival Time Analysis | ***Python, Pandas***

- Conducted data analysis on Translink information in Vancouver, providing valuable insights for future scheduling considerations.
- Gathered and formatted arrival time data into CSV style for analysis, ensuring accuracy and compatibility with statistical tools.
- Collaborated in a pair of 2 to conduct statistical tests on arrival times data to evaluate the need for bus schedule adjustments, determining an average delay of approximately 30 seconds.

Breast Cancer Detection Model | ***Python, Jupyter***

- Engineered a machine learning model built around backward and forward propagation to accurately predict the presence of breast cancer.
- Manually implemented various optimization techniques, such as gradient descent with momentum, and RMSprop to further improve training results.
- Trained and tested with spreadsheet style data, achieving a test set accuracy of 99.98%.

Embedded Tweet Discord Bot | ***Python, Discord API***

- Developed a Discord bot to correct improperly embedded Twitter links within messages.
- Leveraged Discord API for integration and functionality within the Discord platform.
- Utilized Google Cloud Platform to host the bot continuously, ensuring 24/7 availability and reliability.

Technical Skills

Languages: Python, JavaScript, HTML, CSS, C++, C, Java, MATLAB
Frameworks: React, Node.js, Three.js, Tailwind CSS, Scikit-learn
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio