Evan Liu

Engineering Physics Co-op Student | liuyievan@gmail.com | Evanyl.github.io

Technical Skills

Languages: Java, JavaScript, C++, Python, Matlab, HTML/CSS
Frameworks: React, Node.js, Spring Boot, JUnit, GTest
Tools/Environments: Git, AWS, Visual Studio, VS Code, PyCharm, IntelliJ

Relevant Experience

Software Team Member Sep. 2020 – Present
UBC Open Robotics *Vancouver, BC*

- Programming a piano-playing robot using C++ and Arduino in collaboration with four other members
- With a team, wrote specification and a UML chart for codebase to assist with project management, and ensure maintainability.
- Redesigned the song-processing algorithm to eliminate bugs, and achieve better hand and finger coordination.
- Employed a test-driven development approach to ensure correctness in software, and ease of debugging.

Technical Projects

Virtual Worlds Simulation | *Java, JUnit, Git* | Nov. 2020

- Contributed to a virtual world simulation code base while practicing proper subtyping and OOP principles
- With two teammates, created an artificial intelligence for foxes and rabbits to maximize their species' survival
- Performed thorough unit testing with JUnit

RunSocial - Runsocial.social | *Java, Spring Boot, React, JavaScript, MySQL, AWS* | Nov. 2020

- Developed a full-stack web application using Java Spring Boot to serve a REST API with React as the frontend
- Created a MySQL instance to interface with web application and store data
- Deployed the front-end, back-end, and database using AWS

Image Processing Library | *Java, JUnit, Git* Sep. 2020 – Oct. 2020

- Implemented an image processing library in Java to perform 11 functions, including a green screen and text align
- Organized work among two other group members, using Git to manage version control
- Followed test-driven development, and performed automated unit testing with JUnit to achieve 95% line coverage

Chat Web Application - Evanyl.herokuapp.com | *JavaScript, Socket.IO, Express, Node.js* July 2020

- Created a real-time chat room website using JavaScript, Express, and Socket.IO
- Implemented the Socket.IO framework to allow bidirectional communication between the user and web server
- Wrote the web server to handle Sockets using Express with Node.js

Education

University of British Columbia Vancouver, BC
Bachelor of Applied Science in Engineering Physics *Sep. 2019 - May 2024 (expected)*
CGPA: 93.8%
Coursework: Principles of Software Construction, Linear Circuits, Experimental Techniques, Multivariable and Vector Calculus

Interests

Hiking • Robotics • Musical instruments • Machine Learning