

Alyssa Kou

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Surrey

Technical Skills

- Languages: Bash, C++, C, CSS, HTML, Java, Javascript, Python, MIPS, X86-64 Assembly
- Software: IDLE, IntelliJ, MatLab, Visual Studio Code, Wireshark
- Frameworks: Flask, Tensorflow, MoveNet
- Version Control: Git, Github
- Operating Systems: Linux, Windows, UNIX

Technical Projects

The Most Mountainous Troll (<https://github.com/alyssa-k528/MostMountainousTroll>) Mar 2024

Languages: Python, JavaScript, HTML, CSS; Mountain Madness Hackathon

- Takes in user voice input through the microphone compares pitch range with a CSV file of songs, then returning the best karaoke song according to their pitch
- Used Flask for the back-end to create an API to handle requests and manage data flow between the front-end and the voice analysis system.
- Developed a Python program to ingest voice input and handoff key portions of the data to Flask

Penguin Warriors (<https://github.com/alyssa-k528/cmd-f-2024-FAAM>) Mar 2024 - Present

Languages: JavaScript, HTML, CSS; CMD-F Hackathon

- Won runner-up in HealthTech for All track and the UBC CS Hub prize
- Interactive game where the user must complete exercises with accurate form in order to 'attack' their enemy, otherwise, they will be 'attacked'
- Using Tensorflow, we leveraged MoveNet to aid in user-movement tracking
- UI implemented on a web application displaying the camera and identified keypoints

Maze Game Feb 2024 - April 2024

Languages: Java

- Implementing object-oriented design and programming to optimize code by restructuring its dependencies and program structure for enhanced implementation and understandability
- Guided by UML diagrams and use cases improving work proficiency during development phases
- Followed agile and scrum methods to ensure collaborative and efficient work
- Incorporated unit, functional, and integrational testing to achieve the best coverage possible

Birthday Lookup System Jan 2023 - April 2023

Languages: C/C++

- Created a program that reads, sorts, and outputs an organized birthday file depending on input
- Applied object-oriented programming principles along with ADTs and created binary search trees
- Checked for heap memory leaks using Valgrind, ensuring that dynamically allocated variables were deallocated correctly

Work Experience

Administrative Assistant May-July 2023 | May-Aug 2024

Ashley Wu PREC, South Surrey

- Conducted house inspections and maintained detailed reports to ensure compliance with company and legal standards
- Managed client communications effectively, promptly resolved client issues on a regular basis

Education

Bachelor of Sciences Sep 2022 - Present

Major in Computing Science, Minor in Criminology

Simon Fraser University, Burnaby