Yi Xiao (Shawn) Lu

shawnlu4@gmail.com | +1 (604)-655-0100

🌐 shawnlu.dev
github.com/chees-e
linkedin.com/in/shawn-lu-23574918/

Technical Skills

Languages:
- Python
- JavaScript
- Java
- C/C++
- Verilog

Tools:
- Bash
- Quartus
- MongoDB
- MATLAB
- Vim

Experience:
- OpenCV
- MediaPipe
- SoC FPGA
- PennyLane
- AWS EC2

Education

University of British Columbia   **Graduation: May 2023**
Bachelor of Applied Science - Computer Engineering

Work Experience

Robokids, Coquitlam, BC   **August 2020 - Present**
Teacher
Guides K-12 students with the interest of robotics, coding, mathematics, or 3D-design to develop their interests and complete projects.

Self-Arranged Tutoring, Coquitlam, BC   **September 2018 - August 2020**
Tutor
Tutored multiple high school students with Programming, Mathematics, Physics, and Chemistry.

Projects

shawnlu.dev, Personal Project   **2023**
• Website that displays information about me.
• Created front-end (HTML/CSS) and back-end (express.js).

Gesture-Controlled Drone, Capstone Project   **2021**
• DJI Tello drone controlled wirelessly with Huawei's Atlas 200DK board.
• Recognizes body postures with a deep learning model and processes them into commands.
• Implemented PID tracking to keep the user's face centered.
• Added ability to record drone footage and transfer control to another user.

Projects

Flow, School Project   **2022**
- A JavaScript program analyzer that visualizes function calls using Mermaid diagrams.
- Programs are parsed into Abstract Syntax Tree using espree.
- Nagivated using a graphical user interface made with React.

Bloq, School Project   **2022**
- Domain-Specific Language created using ANTLR to help game developers to create tiled maps easily.
- Supports multiple features including variables, conditionals, functions, and loops.

Discord bot, Personal Project   **2019**
- Discord client made with discord.js.
- Has multiple commands including checking stocks, translating messages, searching images.

M68kV6.0 System, School Project   **2022**
- Motorola 68000 system programmed into De1-SoC's FPGA.
- Programmed features in Quartus including SRAM, DRAM, Cache, SPI Bus & CANBus Controllers.

Android App, School Project   **2020**
- Messaging App where you can add friends and send messages.
- Worked on both the Fronted and the Backend as well as connecting the two ends.
- Developed a RESTful API for managing and storing user/app data.

Interests

- Mathematics
- Puzzles
- Snowboarding
- Badminton

- 3D Design
- Digital Music Making
- Piano
- Game development