Patricia Liu

✉ p99liu@uwaterloo.ca · 🔗 in/patricia-liu-a4589b153/ · 🐙 PatLiu1168 · 🖥 patliu1168.github.io

Skills

- **Programming Languages:** C/C++, Bash, Python, HTML/CSS/JavaScript, Java, Latex
- **Operating Systems:** Windows, Linux Operating System, OSX
- **Software Tools:** Apple XCode, Microsoft Visual Studio Code, GitHub
- Great leadership, teamwork, and communication skills gained from coaching and leading a robotics team.
- Excellent self-teaching skills shown by learning Java, HTML/CSS, JavaScript, Bash, and Python online.

Relevant Projects/Experience

VEX Robotics | Bell High School Girls Team   **Ottawa, ON**
Team Leader   March 2018- February 2019

- Participated in the 2018 VEX Robotics Competition Turning Point
- Led a team of 4 girls to design, build, and program a VEX robot; self-taught RobotC to program the robot to move and launch balls; researched gear ratios to build an efficient dual flywheel launcher; investigated the physics of launchers to calibrate its trajectory; and designed the robot's structure.

Personal Website   **November 2019 - present**

- Applied JavaScript and HTML/CSS to design and create a website that contains a portfolio of programming skills, showcased previous C++ projects, and accessed networking and software platforms.

Games   **September 2016 - present**

- Created role-playing games by using Turing to program actions and behaviour, and Paint to design the sprites and graphics.
- Used Jupyter Notebook to create games, improving my comprehension of the language Python. Games include tic tac toe and blackjack.

Work Experience

Core OS Test Team: Kernel Regression Automation Student   **Ottawa, ON**
Blackberry QNX   June 2020-August 2020

- Utilized C to design and implement test cases to cover libc APIs from a thread-safe and signal handler safe point of view.
- Communicated effectively with team members to devise a template for testing API safety in multi-threaded environments, consequently improving teamwork and understanding of threads and processes.
- Applied command line tools to use regression tests in the QNX operating system; simultaneously developing problem solving skills.
- Developed a basic understanding of message passing between server and clients in a micro-kernel.
- Self-taught scripting in a Linux environment, as well as signal handler and thread safety concepts; thus demonstrating excellent diligence and a desire to learn.

Coach/Summer Camp Counselor   **Ottawa, ON**
SOONG BADMINTON ACADEMY   June 2017-August 2019

- Certified as an NCCP Regional Badminton Coach by Badminton Canada.
- Supervised with patience a group of six to twelve children, ages varying from 6 to 14
- Taught correct badminton techniques and organized activities for the children to apply the skills they've learned, attaining great communication and observation skills.
- Collaborated with a team of 10 counselors and volunteers to ensure the safety and satisfaction of campers, therefore demonstrating excellent teamwork skills.

Education

University of Waterloo *GPA 3.7*   **Waterloo, ON**
Candidate for Bachelor of Applied Science, Computer Engineering   September 2019 - April 2024 (expected)
GPA: 85.81%

Interests/Awards

Programming, Piano, Flute, Badminton, Volleyball, Skiing, Rock Climbing. Silver Medal (grade 9, 10, 11, 12),

Grade 11 Gifted Chemistry Subject Award, Leadership Award, HOSA Sports Medicine: 8th place.