




PATRICIA LIU

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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
- Excellent self-motivation and initiative developed by creating automated test cases remotely.
- Strong leadership, teamwork, and communication skills gained from coaching and leading a robotics team.

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 that verify the thread-safe and signal handler safe capabilities of libc API in the QNX Operating System.
- Communicated effectively with team members to devise a template for testing API safety in multi-threaded environments, consequently improving understanding of threads and processes.
- Developed a basic understanding of message passing between server and clients in a micro-kernel.
- Wrote bash script in Linux environment to compile and run test cases.
- Learned async-signal and thread safety concepts, 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.

RELEVANT PROJECTS/EXPERIENCE

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

- Used C to create a discord bot that takes user input and searches the web for corresponding images of cats, thus helping cat lovers find their ideal pet.
- Created role-playing games by using Turing to program actions and behaviour, and Paint to design the sprites and graphics.
- Improved my comprehension of Python by creating games such as tic tac toe and blackjack.

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.

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, 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.