

PATRICIA LIU

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SKILLS

- **Programming Languages:** C/C++, Bash, Python, RobotC, 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.