Warrick Tsui

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Innovative and versatile Computer Engineering student with 2+ years experience in backend programming and 1+ year in frontend development. Proven Leader with exceptional critical thinking and conflict resolution capabilities. Curious and analytical in new environments, and thrives in solving complex problems with great attention to detail.

TECHNICAL SKILLS

Languages: Python | Java | C | C++ | JavaScript | HTML | CSS | MATLAB

Tools: React.js | Firebase | Web scraping (Selenium) | Verilog | Assembly | Git | Quartus | MS Office

EDUCATION

Bachelor's of Applied Science and Engineering in Computer Engineering + PEY Coop

University of Toronto, Toronto, ON

September 2023 - April 2028 (Expected) | Average: 93.2%; | Top 30 Academic Standing in Electrical and Computer Engineering

- · Dean's List Scholar, Recipient of the President's Scholar of Excellence and Edward S. Rogers Admission Scholarship
- Relevant Courses: Programming Fundamentals (C++), Digital Systems (Verilog and FPGAs), Introductory Electronics, Linear Algebra (MATLAB),
 Computer Organization (Assembly)

Ontario High School Diploma

Bill Hogarth Secondary School, Markham, ON

June 2019 - June 2023

• Grade 12 Average: 99.67% | 3rd highest average in York Region District School Board | Recipient of Governor General's Medal

WORK EXPERIENCES

Programming Classroom Facilitator

CodeSky, Markham, ON

- Organized and executed 2 weekly 90-minute lectures on Scratch and JavaScript/CSS/HTML for elementary and high school students to explore their interest building responsive websites and applications
- · Directed training sections for the Waterloo Mathematics Contests, with 3 students obtaining merits in their respective competitions
- Propelled coding class sizes to grow by 120% from June 2024 to September 2024

Summer Camp Activity Leader

July 2024 - Aug 2024

June 2024 - Present

Oxford International North America, Toronto, ON

- Supervised up to 6 excursions a week, touring around 25 international students around Downtown Toronto while fostering a welcoming environment
- · Communicated with at least 5 travel program supervisors daily to inform them of student behaviors and upcoming itineraries
- · Ensured outings are consistent with original schedules, and making contingency plans if necessary

Team Leader Jan 2024 - Apr 2024

University of Toronto Engineering Strategies and Practices Project II, Toronto, ON

- Led a team of 6 engineering students to design three renovations for a student wellness room and constructed two 30+ page engineering documents: Project Requirements and Conceptual Design Specifications; each obtaining a 4.0 GPA grade
- · Supervised weekly team meetings to discuss ongoing research on building constraints and soundproofing materials
- · Performed three professional negotiations with a client to ensure all project requirements and demands are met
- Conducted feasibility analysis on 200+ project idea proposals with team members through organized techniques like SCAMPER and mindmapping

Co-op Accounting Assistant

Jan 2022 - June 2022

Stouffville Toyota, Whitchurch-Stouffville, ON

- Performed cash reports for six dealership departments and executed at least 25 Accounts
- · Payable entries daily into the TBS bookkeeping software
- · Collaborated with an accounting department of five to maintain the dealership's cash flow
- · Reconciled company's data on Excel against Invoices to ensure the accuracy of recent car sales

CO-CURRICULAR ACTIVITIES

Driverless Mapping Team Member

University of Toronto Formula Racing Team, Toronto, ON

October 2024 - Present

- Prototyped and designed an Error Graph Widget application using React.js
- Successfully plotted differences between 100+ estimated positions and true positions of cones used for race vehicle testing

Electronics/Structural Team Member

May 2024 - October 2024

University of Toronto Human Powered Vehicles Design Team, Toronto, ON

- Constructed integrated circuit prototypes such as the 555 timer on breadboards
- Contributed to the completion of an aircraft through alloying epoxy solutions, layer carbon fiber sheets, and carving 50+ carbon fiber discs.

PROJECTS

Tetris - Verilog Project

November 2024

- · Collaborated with lab partner to re-recreate game Tetris on a DE1-SoC FPGA board using Verilog
- · Implemented animation display and gameplay logic through processing .MIF files and creating SRAM on Quartus Prime

ReliefGrid - NewHacks Hackathon Project

October 2024

- Collaborated with a team of 4 to create a web application easing the management of natural disaster resource allocation in communities
- · Implemented real-time data synchronization for resource management using Firebase and JavaScript.

Orthello Terminal Game - Automated Bot

Mar 2024 - April 2024

- · Programmed an automated, interactive board game on terminal with an automated computer opponent using C.
- · Deployed a minimaxing algorithm to program heuristic functions to search for optimal strategies against the user.

Gas Price Checker - Web Scraping Project

May 2023 - June 2023

- · Programmed an interactive GUI using Java that provides the lowest gas station prices near the user. Utilized Selenium web driver to successfully obtain 500+ gas stations' data within 50km radius of user's location