

# RICHARD LIU

## CONTACT

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## SKILLS

Windows OS + IOS      MatLab  
Microsoft Office      Git Version Control  
VSCode                  Modelsim  
HTML & CSS            FPGA programming  
Networking            Cybersecurity

Programming Languages:  
Java, C, C++, Verilog, Python, SQL,  
ARM Assembly

Object Oriented Programming (OOP)

Optimistic and Resilient

Strong Time Management,  
Communication and Cooperative Skills

Critical and Creative thinker

## EDUCATION

**Bachelor of Applied Science in Computer Engineering + PEY**

**University of Toronto**      cGPA 3.70  
2021 - 2026

### Relevant coursework:

Digital Systems, Circuit Analysis, Signals and Systems, Software Communication and Design, Computer Organization, Algorithms and Data Structures, Operating Systems

### Awards and Honours:

Dean's List, Edward S Admission  
Scholarship

### International Baccalaureate Program

**Victoria Park CI**      Average 97%  
2017 - 2021

### Contests:

McMaster Physics Contest, Canadian Computing Competition, Gauss, Pascal, Cayley, Fermat, Euclid Math contests, Don Mills Programming Gala, Hack the 6ix

### Extracurricular Activities:

Founder of Frisbee club and Captain of the team, Badminton club, Symphonic Band

## EXPERIENCE

### IT Administrator/Data Analyst

Toronto Regional Real Estate Board      May 2023 - August 2023

- Created SQL views and stored procedures to improve usability and efficiency of the company's database
- Helped maintain servers, switches, and routers to ensure consistency with the company's network structure
- Contributed to system cybersecurity by downloading software updates, monitoring network data, and managing firewalls
- Resolved software and hardware issues for company employees through a ticketing system

### RSX Software Developer

University of Toronto      September 2022 - March 2023

- RSX is a design team in UofT that designs, builds, and programs a space rover that competes in international competitions.
- Used Python, ROS, and C++ to program the rover
- Simulated virtual environments using Gazebo and Xming to ensure functionality of the ZED camera

### IT Helpdesk Assistant

Woodgreen Community Services      May 2022 - August 2022

- Installed and performed minor repairs to hardware, software, and peripheral equipment, following design and installation specifications
- Set up equipment for employee use, performed and ensured proper installation of cables, operating systems, and appropriate software
- Performed routine and scheduled maintenance services

## PERSONAL PROJECTS

[github.com/Rucherd](https://github.com/Rucherd)

### Google Maps Project

January 2023 - April 2023

Collaborated in a team to build a comprehensive GIS (Geographic Information System) from scratch. Leveraged the Open Street Maps API to acquire map data and employed various algorithms and programming techniques to design the graphical user interface (GUI) and implement pathfinding capabilities.

### FindWho Deep Learning Project

May 2023 - August 2023

Created a product called FindWho that uses Deep Learning to determine a persons' characteristics in real time given video input. Used Pytorch to implement CNN models, training functions/labels, and to process data.

### IB Student Marks Manager

March 2021 - April 2021

A product designed for IB teachers allowing them to store IB students' marks/information in a database and "curve" them if necessary. Programmed in Java using Object Oriented Programming and Graphical User Interfaces.