

# Andy Yun

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## Skills

**Programming Languages:** C, C++, JavaScript, Python, Java, HTML, SQL, PHP, VHDL

**Platform/Devices:** AWS, GCP, Git, Arduino, Linux, UNIX, MQTT, PLC, GPGPU, CUDA, JSON

**Framework/Library:** Node.js, Express.js, WebSocket, PySide2, TensorFlow, PyTorch, OpenCV, Anaconda

## Experience

### Software Developer Co-op

Stackpole International - Ancaster, Canada

January 2022 – April 2022

- Reduced the communication overhead between PLC and Host computer by 30% by using a caching mechanism
- Built GUI, Machine Learning and telemetry software to reduce the human error involved in the production
- Utilized **Python**, **PySide2**, **OpenCV**, **TensorFlow**, and **PyTorch** for Omron PLC and **GPU** servers
- Applied knowledge related to the memory address, binary numbers and other mathematical knowledge while programming for **PLC** controllers through the ethernet connection to ensure the security of communication

### Full Stack Developer

TEMS Academy - Waterloo, Canada

October 2020 – June 2021

- Designed the architecture of a **Web Platform** for the tutors and students to communicate and evaluate on
- Reduced communication overhead by 50%, allowing tutors to focus on lessons rather than filing each student
- Remaining similar or higher level of data confidentiality through user authentication and built-in encryption to control the accessibility of each data compared to traditional filing system using google G-suite
- Constructed a full-stack application that is mobile-friendly, making it suitable for more diverse lessons and ensuring the connectivity with the management system of the company

### Software Developer Co-op

The Hacksmith - Kitchener, Canada

October 2019 – January 2020

- Wrote Arduino and web-based codes for the e-ink displays, web server, and IoT service interruption detectors
- Reduced memory usage by 17% from applying optimization techniques such as dynamic allocation in **C/C++**
- Constructed full stack applications on **Linux**, **UNIX** and **Windows** environments using **JavaScript**, **HTML** and **SQL**

## Projects

### Logic.Gate Tutoring Platform

Waterloo, Canada

September 2021 – Ongoing

- In the progress of developing and prototyping a programming education platform for University Students
- The objective is to provide knowledge of programming to first-year students learning to program for the first time, to better equip them for rushing lectures in the programming field
- Directed and implemented the project as both **team leader** and **lead developer**

### CanadaHousing Platform

Waterloo, Canada

May 2022 – Ongoing

- Designed and in the progress of developing a platform for finding sublets in the Waterloo/Kitchener Area
- Utilized **JavaScript**, **Node.js**, **Python**, and **SQL** for development and GitHub for collaboration and planning
- Participated in and implemented the project as a head **backend developer**

## Education

### University of Waterloo

Candidate for Bachelor of Applied Science in Computer Engineering

September 2021 – Ongoing

- 2021 University of Waterloo President's Scholarship