Michael Elliot Wong

Toronto, Ontario
+1(647)686-8400 wongm3079@gmail.com linkedin.com/in/wongm3079 wongm3079.github.io

Education

Bachelor of Engineering Science, Computer Engineering **Sept 2019 - April 2024**
Western University, Dean's Honour List (1st Year) *London, Ontario*

Technical Skills

Languages: C/C++, Java, Python, VHDL, ARMv7, Arduino, MATLAB and Simulink
Developer Tools: Windbg, JTAG Hardware Debug Tool, VS Code, IntelliJ, Quartus Prime, EAGLE PCB, MicroCap
Hardware Prototyping: Simulation Waveform Analysis, Oscilloscope, Multimeter, Soldering, Breadboard Circuits

Employment Experience

Radeon Technology Group Software Quality Assurance **May 2022 - August 2023**
Advanced Micro Devices, Inc. *Markham, Ontario*

- Developed, defined, and executed automated and manual test plans which covered functionality, performance, reliability, and usability for Navi3x programs
- Automated System setup processes using power shell and batch files which reduces system setup time by 50%
- Identified various bugs and created JIRA tickets for issue tracking
- Diagnosed software defects with Windows Debugger (WinDbg), registry level debug tools, and internal tools
- Effectively communicated and addressed problems and issues found during the various testing phases
- Mentored new co-ops and provided feedback to streamline the new-hire onboarding process
- Received Multiple Spotlight and Co-Op Recognition awards

Engineering Projects

Water Absorption Data Parser | *Python* **March 2023**

- Created a program to parse water absorption data to be compared to government drinking water quality guidelines
- Analyzed datasets by sorting, filtering, and grouping pertinent information using the Python Pandas Library
- Utilized the Python Matplotlib library to display relevant data through tables, charts, and graphs
- Consulted and proposed numerous solutions for desired data formatting with the client

COVID Safety Smart Room Controller | *C, ARMv7* **Feb 2021 - April 2021**

- Developed a solution to track and maintain the number of occupants in a room to adhere to COVID safety guidelines
- Implemented interrupts, timers, counters, and 7-segment displays into final design using ARMv7

Error Correcting Transmitter and Receiver | *Quartus Prime, VHDL* **March 2021**

- Implemented a PISO shift register to transmit a 20-bit encoded message to a SIPO shift register
- Applied the Hamming code algorithm to detect error with parity bits
- Implemented transmitter and receiver using VHDL

Multi-FA Security Lock | *Arduino, Soldering, Breadboard Prototyping, EAGLE PCB* **March 2021 - April 2021**

- Designed a prototype utilizing actuators and sensors to improve the standard design of a digital safe
- Implemented the design on Tinkercad, then soldered and constructed all components on a breadboard
- Designed an Arduino shield layout using EAGLE PCB schematic and board

Project Retina | *Java, Arduino, Onshape* **Jan 2020 - April 2020**

- Developed a system to improve quality of life for clients with severe intellectual disabilities
- Designed and created a GUI interface in Java
- Generated a wireless communication system to receive input from an eye tracker and to deliver signals to external hardware subsystems
- Managed a team of students to ensure deadlines were met and the project stayed within budget

Personal Projects

PC Benchmarking | *Python, Microsoft Excel, PC Building* **Sept 2021 - May 2022**

- Built multiple PC variations to test different combinations of components to maximize performance
- Utilized Unigen Heaven, Furmark, Cinebench, and Triple-A games to stress test PC components
- Utilized HWiNFO to record sensor status of all components onto a .csv file during benchmarking
- Developing Python scripts to automate filtering of relevant benchmarking results

Network Attached Storage | *FreeNas, Linux, PC Building* **June 2020**

- Configured and built a PC with power-efficient parts designed to be active 24/7
- Installed a Linux based server utilizing FreeNas
- Configured multiple drives in a RAID 1 array
- Created multiple private user accounts including private and hidden directories

Interests

Esports, Bouldering, Self-Teaching Musical Instruments, Producing Music