Daniel Wang

Markham, Ontario | 647-829-0699 | Daniel3.Wang@torontomu.ca | www.linkedin.com/in/daniel-wang-296387235

SUMMARY OF QUALIFICATIONS

References Available Upon Request

Third-year Computer Engineering student at Toronto Metropolitan University with skills in digital logic design, FPGA (Quartus II), and microcontrollers. Hands-on experience with PC building, system level hardware/software testing, and sensor integration. Programming skills in Python, C and Java with experience in Linux, knowledge of computer organization, FSMs, and timing.

EXPERIENCE

Toronto Metropolitan Engineering Concrete Toboggan Team - Tech Display **Toronto | May 2025 - Current**

- ➢ Tasked with creating designs for TMU at Canada's largest and oldest engineering competition.
- ➢ Working with a small team to program and integrate a microcontroller based interactive display using Arduino and C++.
- ➢ Scheduled effectively with team members to create deadlines to reach projected goals in a timely manner.

Digital Logic Design & Quartus II **Toronto | Sept 2024 - November 2024**

- ➢ Collaborated with another student to Design and simulate FSMs, registers, and ALUs in Quartus II to validate digital logic functionality.
- ➢ Implemented a processor with FSM, ALU, memory and instructions on FPGA using Verilog, enabling execution of instructions and arithmetic.
- ➢ Developed testbenches that improved timing verification accuracy and ensured reliable instruction execution on FPGA hardware.
- ➢ Developed strong problem-solving and analytical thinking skills.

Media/Technical Support - Volunteer [Chinese Martyrs Catholic Church] **Markham | May 2020 - March 2024**

- ➢ Quickly learned how to use and operate live-streaming equipment to broadcast weekly masses to remote audiences allowing continued access for the community during the COVID-19 pandemic and major events after the pandemic.
- ➢ Collaborated with church staff and other volunteers to organize a smooth production by resolving technical issues during live events in a timely manner.
- ➢ Demonstrated cooperation, reliability and commitment by consistently meeting streaming and upload schedules.

PROJECTS

Esp 32 microcontroller weather station with 8+ Sensors **Toronto | June 2025**

- ➢ Programmed ESP32 microcontroller to integrate temperature and humidity, hall effect, and light sensors for real time weather monitoring.
- ➢ Collected and processed live sensor data with >95% accuracy and implemented a web based dashboard for visualization and remote access.
- ➢ Used AutoCAD modeling and 3D printing to produce functional components for project prototypes.
- ➢ Debugged hardware/software communication issues, reducing data transmission errors.

Simple Book Store Application **Toronto | May 2024 - June 2024**

- ➢ Collaborated with two other students to design and implement an object oriented application using UML design principles and patterns.
- ➢ Programmed in Java within the NetBeans IDE (v8.2), integrating JavaFX for the user interface.
- ➢ Successfully communicated with group members to organize and manage project tasks, achieving a final grade of 94%.

PC Building & System Setup **Markham | 2020 - Present**

- ➢ Built and configured 15+ custom PCs with optimized OS, drivers, and hardware setups.
- ➢ Performed system benchmarking to test CPU/GPU performance and identified bottlenecks, improving efficiency for gaming and workstation builds.
- ➢ Developed structured troubleshooting steps that reduced problem-resolution time and gained expertise in hardware compatibility and diagnostics.

TECHNICAL SKILLS

- ➢ Hardware & Design: Quartus II, Verilog, FPGA (Altera DE series), Logic Design (FSM, ALU, memory), Microcontrollers (Arduino, Esp 32), Soldering
- ➢ Programming & Scripting: Python, C, C++, Java
- ➢ Tools & Systems: Linux, Windows, MATLAB, Multisim, Oscilloscope, Git, Autodesk, Microsoft Office
- ➢ Core Knowledge: Digital/analog circuits, transistor behavior, system-level debugging, CPU/GPU basics OS/drivers installation

EDUCATION

Bachelor of Engineering – Computer Engineering ***Toronto Metropolitan University | September 2022 - Present***

Relevant Courses: Digital Systems, Software Systems, Electronic Circuits I, Engineering Algorithms and Data Structures