Zhi Yang Chen

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EDUCATION

University of Toronto | BASc in Computer Engineering   **September 2021 - Present**
- Coursework: Computer Fundamentals (C), Programming Fundamentals (C++, OOP), Digital Systems (Verilog, FPGA), Computer Organization (ARM), Software Design and Communication (C++, GTK), Signals and Systems (MATLAB)

SKILLS

Programming: HTML, CSS, JavaScript, C, C++, Verilog (HDL), MATLAB, ARM Assembly
Software Tools: Github, Git, Intel Quartus Prime, Altium Designer, ModelSim, VSCode, Multisim
Hardware Skills: Oscilloscope, Breadboards, DE1-SoC Boards, STM32 Nucleo, Soldering, Digikey

EXPERIENCE

407 ETR Concession Company Limited   **May 2023 - September 2023**
Junior Tolling Field Technician - Full Time   Woodbridge, ON
- Assisted in the 407 East Detolling project, adding 6 new operational sites, decommissioning 22 legacy sites, and deploying 10 new front capture systems, optimizing tolling operations and service.
- Conducted rigorous testing of tolling equipment within a controlled laboratory environment, identifying and addressing potential technical issues, ensuring reliable and accurate data transmission.
- Maintained tolling sites, conducting routine inspections, diagnostics, and adjustments to ensure optimal tolling equipment functionality.

Blue Sky Solar Racing   **September 2022 - Present**
Electrical Team   Toronto, ON
- Proficient in soldering and testing circuit boards, ensuring a high degree of performance and reliability for electronic applications.
- Experienced in Altium Designer to design PCB layouts, create new component libraries, and develop schematics for various solar car electrical systems.
- Participated in testing and validation of new electrical components and systems, working closely with electrical team members to ensure optimal functionality.

PROJECTS

OTFMap
University of Toronto   Software Design & Communication
- Designed and developed a custom Geographic Information System similar to Google Maps, leveraging a database of city intersections, streets, and geographic features.
- Utilized C++ STL, OpenGL, and advanced pathfinding algorithms, including A* and Dijkstra''s algorithm to create a fully functional and responsive GIS with navigational features.
- Worked collaboratively with a team of three using Git and Github for project management and version control.

Quality Assurance Specialist
University of Toronto   Engineering Strategies and Practice II
- Collaborated with a team of six to successfully design a reusable origami bag,
- Conducted rigorous quality assurance tests on the bag's abrasion and tensile strength to ensure the product met high standards
- Played a crucial role in producing a fully functional prototype of the bag, which was later presented and showcased at the ESP Design Day.

The Web Developer Bootcamp
UDemy Inc   Online
- Currently enrolled in a comprehensive, project based course covering full-stack web development, including HTML5, CSS3, JavaScript, Node.js, Express, MongoDB and more.