Zhi Yang Chen

zhiyangchen003@gmail.com • linkedin.com/in/zhiyangc/ • github.com/zhiyangg • zhiyangg.github.io/website/

EDUCATION

University of Toronto | BASc in Computer Engineering **Sep 2021 - May 2025**

- Relevant Coursework: Software Design and Communication (C++, GIS Design), Algorithms and Data Structures, Operating Systems, Applied Fundamentals of Deep Learning

SKILLS

Programming Languages: C/C++, JavaScript, Verilog (HDL), ARM Assembly, MATLAB, HTML/CSS, Bootstrap
Frameworks: React.js, Node.js, Express.js, Bootstrap, MongoDB, Mongoose
Developer Tools: Git, Github, Git Bash, Visual Studio, Intel Quartus Prime, Altium Designer, ModelSim, Multisim, AWS

EXPERIENCE

407 ETR Concession Company Limited **May 2023 - Sep 2023**
Junior Tolling Field Technician - Full Time Woodbridge, ON

- Conducted routine inspections, diagnostics, and adjustments to maintain peak performance of tolling sites, guaranteeing uninterrupted tolling operations
- Rigorously tested tolling equipment within a controlled laboratory setting, identifying and proactively addressing potential technical issues, resulting in reliable and accurate data transmission

Blue Sky Solar Racing **Sep 2022 - Present**
Electrical Team Toronto, ON

- Proficiently soldered and tested circuit boards, ensuring a high degree of performance and reliability for various electronic applications, improving the team's electrical systems
- Utilized Altium Designer to design PCB layouts, create component libraries, and develop schematics for various solar car electrical systems, contributing to system functionality and advancements

PROJECTS

YelpCamp| *Full-Stack Developer* **May 2023 - Sep 2023**

- Created a full-stack campground review web application, utilizing technologies including **Node.js**, **Express.js**, and **MongoDB** to build a dynamic and intuitive platform
- Designed and implemented a user-friendly front-end interface using **HTML/CSS** and **Bootstrap**, elevating user experience through responsive design principles and **UX/UI** refinements
- Ensured seamless and secure user experience by deploying the application on Render, leveraging **AWS** infrastructure

OTFMap | *C++, GTK, Glade, EZGL, OpenStreetMap API, Git* **Jan 2023 - Apr 2023**

- Developed a GIS akin to Google Maps, utilizing **C++ (STL)** and **OSM API**, along with a customized database
- Implemented **Dijkstra's** and **A* algorithms** for fully optimized pathfinding in 20 different cities, surpassing all TA algorithms in travel time and ranking within the **top 10%** of the class
- Designed a user-friendly front-end utilizing **Glade** and **GTK**, allowing for responsive and efficient user interaction

Enhanced Processor | *Verilog HDL, ARMv7 Assembly, ModelSim* **Mar 2023 - Apr 2023**

- Developed a sophisticated **16-bit processor** with 8 registers and a robust **Arithmetic Logic Unit (ALU)** using **Verilog HDL**, incorporating a **Finite State Machine (FSM)** for precise control
- Seamlessly integrated various I/O devices, including LEDs, switches, and HEX displays, to create a captivating animation on a **DE1-SoC board**, leveraging **ARMv7 Assembly** programming