Yiming Zhang

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Education

Bachelor of Applied Science and Engineering **4th Year**
Computer Engineering Student
University of Toronto
Sept 2020 – May 2025

Core Courses

- **ECE345: Algorithms & Data Structures**
- **ECE297: Communication and Design**
- **ECE244: Programming Fundamentals**
- **ECE361: Computer Networks**
- **ECE243: Computer Organization**
- **ECE344: Operating Systems**

Tools and Skills

- **C++**
- **C**
- **Python**
- **Verilog (Quartus and ModelSim)**
- **MATLAB**
- **Arm Assembly**

Intern Experience

System on Chip Digital Verification Intern| Alphawave Semi | May. 2023-Aug. 2024 |Toronto

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- Developed a full-stack system using Python (Flask), MongoDB, and HTML/JS streamlining regression result analysis, saving developers 20 minutes a day to look through and assign debugs.
- Performed register bit bash testing via APB access and sanity tests debug, aiding in SoC design verification.

Software Developer | Sophoton | May. 2022-Sept. 2022 | Shanghai, China

- Improved an existing plotting tool by enhancing label clarity with matplotlib, increasing data readability by 25%.
- Designed software using tkinter to help designers to visualize chips they make in a self-driven manner.
- Conducted and delivered a final design presentation to the company, leading to the adoption of the tool by 100% of the design team

School Projects

Software Developer |Software Design and Communication| Jan. 2022-Apr. 2022 | Toronto

- Worked in a group of 3 to develop a large program similar to Google Maps in C++, utilizing the OSM (OpenStreetMap) database and API to draw geographical locations.
- Collaborated using GIT, learning effective design & communication skills for large-scale software development projects.
- Implemented algorithms such as Dijkstra's and A* to facilitate pathfinding and obtain optimal directions.
- Utilized GTK toolkit and EZGL graphics package to design GUI and allow interactivity of map.

Processor Design| Computer Organization | Apr. 2022 | Toronto

- Utilized Verilog to design a 16-bit processor that could do ARM similar instructions like add, sub, and conditional branch.
- Debugged and tested the project using ModelSim with different test cases.
- Operated a basic ARM-like number-counting program using the processor on a FPGA with Quartus.

Team Leader | Engineering Strategies and Practices II | Jan. 2021-Apr. 2021| Toronto

- Managed client proposal project with team of 5 students to propose a design to solve e-cargo cycle parking issues.
- Effectively allocated work within the group using a Gantt Chart and maintained effective communication within the team and with clients and engineering managers

Additional Experience

Team Leader| Sociology 12 Service-Learning Project | Sep. 2019-Oct. 2019 | Jilin, China

- Directed a group of 17 people in the class.
- Constructed plans of the project and guided practicing and performing sections.
- Delegated tasks to team members and held discussions about plans.
- Learnt to adapt myself to changing circumstances and be a successful director.