

Skills

Programming Language: Python, Java, HTML, CSS, JavaScript, C++, VHDL, C, Bash, VBA

Technical: Digital Logic Design, Visual Studio Code, Microsoft Visual Studio, Github, Eclipse, Excel and Macro, Spyder, Replit for cross-platform application development and low-level driver implementation.

Professional experience

UNIVERSITY OF ALBERTA ECOCAR TEAM

Edmonton, AB

Member of software subteam

Sep 2023 – Present

- Implemented a modular ImGui-based user interface component for knob controls in C++, built cpp applications for multiple platforms using cmake and extended the ImGui Library to render speedometers for the vehicle's telemetry interface.
- Proposed an energy diagram of the car for the Shell Eco-marathon competition.
- wrote tests and set up GitHub to automatically build and release code.
- Actively participated in outreach events aimed at sharing ecocar and discipline course information with the public, including high school and junior high school students.

STARR CLUB

Member of software subteam

Sep 2023 – Apr 2024

- Collaborated with a dynamic software development team to contribute Git expertise and C++ knowledge for tracking and control of Rocket Ringo III project.
- Transferred and maintained the existing UASTARR website with a more budget-friendly solution.

Project Experiences

Personal Website(tairanxi.com)

- Developed and maintained a personal website showcasing my information from scratch with JavaScript, HTML, and CSS through independent learning.
- Integrated social media links, Incorporated Font Awesome icons for a modern and cohesive design, displayed documents to enhance user engagement.

Face Recognition System

- Developed a real-time face recognition system using Python, OpenCV, and face_recognition library.
- Implemented an efficient face detection and recognition pipeline, capable of identifying multiple faces in video streams.
- Documented the project thoroughly, highlighting key challenges and solutions, and shared the source code on GitHub for public use.

Redesigned of a Transit Center-Engg 160

Jan 2023 – Apr 2023

- Acted as stakeholder Manager of team, provided a list of requirements and constraints when redesigning LRT station, and ensured all requirements and constraints were fulfilled during process.
- Cooperated with 5 team members to accomplish different processes of design project, problem framing, project proposal, project sketch, solution ideation, and video report.

Work Experiences

HR express (part-time seasonal)

Calgary, AB

Crew Member

June 2024 – Sep 2024

- Monitored and tracked parcel movements, ensuring 100% accuracy in inventory records by conducting regular audits. Organized parcels based on delivery schedules and priority.
- Maintained up-to-date and accurate records of incoming and outgoing parcels. Utilized software tools, including Excel and company website for efficient data entry and retrieval.

SPICE AND AROMA (full-time seasonal)

Calgary, AB

Crew Lead

Jul 2023 – Sep 2023

- Served and cooked for over 200 customers per shift efficiently, while ensuring quality and food safety standards were maintained
- Provided hands-on instruction and guidance to ensure proper preparation of dishes, adherence to food safety standards, and consistent delivery of high-quality meals to customers

Education

UNIVERSITY OF ALBERTA

BSc, Software Engineering Co-op

Edmonton, AB

(2022-2027)