

ABOUT

I am an approachable and passionate computer engineer with a lifelong appreciation for art and animation. Driven by a desire to merge technology and creativity, I aspire to develop creative tools that empower and inspire artists.

EDUCATION

SEP 2019 - DEC 2024

University of Toronto – Computer Engineering

- Awarded: Lester B. Pearson International Scholarship

WORK EXPERIENCE

JUN 2022 - JUL 2023

Software Engineering Intern – Uhnder Inc. CA

- Successfully implemented a design tool in **Python** for radar antennas which also automated the task of generating product documentation and figures
 - Improved the efficiency of the design workflow.
 - Created all technical documentation, ensuring clear and detailed guidelines for future users
- Successfully architected a custom 3D visualization solution to represent simulation data using **Python** within the **Robot Operating System (ROS)** framework and **Rviz visualizer**.
 - Demonstrated rapid learning and adaptability by quickly acquiring proficiency in the ROS framework
 - Collaborated with multiple teams across the company to ensure alignment and integration with other project components.
 - Set a project timeline and successfully delivered the tool on schedule

PROGRAMMING PROJECTS

APR 2024 - PRESENT

CGRA Data Flow Graph Visualizer - Research Project

- Developing a GUI utilizing **SFML graphics library on C++** to visualize a data flow graph and its congestions on a Course Grain Reprogrammable Array (CGRA).
- Refactored existing code into a modular **Model-View-Controller (MVC)** system, improving maintainability and scalability.
- Engaging in regular feedback sessions with a master's student to accurately represent complex data flow and congestion information within the GUI.

JUN 2023 - Present

CodeBuddy VS Code Extension – Capstone Project (ongoing)

- Built a programming tutor with the goal of helping novice C programmers learn core coding concepts. The tool utilizes the OpenAI API and will become available as a VSCode Extension.
- Developed the front end of the user-interface with **HTML**, **CSS**, and **Javascript**
- Presented organized status updates to project supervisors, ensuring clear communication and alignment on project milestones and objectives.

AUG 2023 - APR 2024

Interactive Sketch Clustering – Research Project

- Collaborated with a postdoc on extending and enhancing an existing stroke clustering algorithm.
- Implemented a feature to handle incremental inputs in **C++**, allowing the system to process and incorporate one sketch at a time, rather than requiring the entire drawing at once.

VOLUNTEERING

MAY 2024 - JULY 2024

Team Leader for **SIGGRAPH** Conference 2024: Coordinated student volunteer activities for over 200 students and provided on-the-ground support for conference attendees and presenters

AUG 2023

Student Volunteer for **SIGGRAPH** Conference 2023: Provided general assistance for attendees and helped contributors demo technologies by providing support with Virtual Reality headset setup

JAN 2021 - JAN 2022

Graphic Design Lead for **Ontario Engineering Competition** 2022: In charge of designing logo, layout, printing, and theme of marketing materials.

TECHNICAL SKILLS

Programming Languages

- C/C++
- Python
- TypeScript

Web Development

- HTML, CSS
- Node.js
- React

Tools and Platforms

- Linux
- Git
- Mercurial

COMPETENCIES

- Communication
- Organization
- Collaboration
- Rapid Learning
- Problem Solving
- Time Management
- Adaptability

COURSES

- Computer Graphics
- Computer Architecture
- Compilers & Interpreters
- Artificial Intelligence
- Applied Fundamentals of Deep Learning

