

JOEY LU

☎ 437-925-6758 ✉ lujoey886@gmail.com 🌐 joeylu.ca 🐙 github.com/joeyhlu

Education

University of Waterloo

Sep. 2024 – Apr. 2029

Bachelor of Computer Science

Waterloo, ON

- **Awards:** Randall J. Howard & President's Distinction Scholarship
- **Coursework:** Algorithm Design, Advanced Functional Programming, Linear Algebra, Calculus, Algebra

Technical Skills

Languages: Python, Java, C, C++, HTML/CSS, JavaScript, SQL, Functional Programming
Developer Tools: VS Code, Xcode, Android Studio, Git, GitHub, Figma
Libraries/Frameworks: React, FastAPI

Experience

Waterloo Aerial Robotics

November 2024 – Present

Autonomy Developer

Waterloo, ON

- Expanded **test coverage** with dedicated cases for camera creation, **OpenCV**, and **PiCamera** configurations, increasing reliability and stability and eliminating **100%** configuration-related issues
- Developed **modular camera configuration classes** for **OpenCV** and **PiCamera**, and updated base-camera settings enhancing flexibility and scalability in the camera factory's initialization process

SoarToWorld

December 2023 – March 2024

Web Developer Intern

Richmond Hill, ON

- Assisted in development of front-end websites using **React** and **CSS** adhering to customer demanded UI features
- Ensured the quality of **50+ screens** through extensive testing and debugging, leading to higher customer satisfaction
- Worked and integrated well within a team environment to **successfully deliver products on time**, resulting in increased organizational efficiency

City of Vaughan

March 2023 – June 2023

Swim Instructor

Vaughan, ON

- Taught various levels with **positivity and active involvement**, achieving **100% positive feedback**
- Provided consistent, **clear verbal and written feedback** consistently to **~30 students**, leading to high skill mastery
- Followed class plans, ensuring all objectives were **met on time**, leading to consistent student progress

Projects

Tracksite | React, MySQL, FastAPI, JavaScript, CSS

September 2024

- Developed a **full-stack** management application enabling users to organize and access applications and websites featuring folder creation and bookmark saving, with a **user-friendly** interface to enhance productivity
- Implemented **API Routes** to handle user requests and data management for the back-end
- Collaborated using **Git/GitHub** for version control and team collaboration, and **Figma** to design

SoundVeil | JavaScript, HTML, CSS

April 2024

- Developed an application that hides data in the **least significant bits of audio**, differences too subtle for the human ear, and enables **encryption and decryption** using the Vigenère cipher, created for YRHACKS
- Created a user-friendly interface with HTML/CSS and JavaScript for **functionality and data-hiding process**

Stubook | Flutter, Dart

October 2023

- Designed a **cross-platform iOS/Android app** to simplify daily study routines, featuring a to-do list, calendar, and grades calculator/storage for efficient organization and tracking of tasks, with **~100 downloads and 5 stars rating**
- Implemented **local data storage** using Flutter's Hive package, ensuring efficient and secure data saving

Honours and Awards

Canadian Senior Mathematics Competition: Rank 129/12305 (Top 1%), Group IV Honour Roll

Canadian Computing Competition: Rank 352/3948 (Top 9%), Award of Distinction

Euclid Math Competition: Rank 1518/27650 (Top 6%), Award of Distinction