Lawrence Ju

613-415-1331 | lyju@uwaterloo.ca | linkedin.com/in/lawrence | github.com/LawrenceJ1

EDUCATION

University of Waterloo   Waterloo, ON
Honours Co-op - Bachelor of Computer Science   *Sept. 2022 – May 2026*
- 94.33 Faculty Average
- Clubs and Activities: Computer Science Club, Chess Club, Badminton Club, Poker Club

Carleton University   Ottawa, ON
Bachelor of Computer Science Honours   *Sept. 2021 – Aug. 2022*
- Deans' Honour List 2021-2022
- Member of the Science of Imagination Lab (cognitive science research group)

EXPERIENCE

Undergraduate Researcher   Jan. 2023 – Present
Laboratory on Innovative Tech in Medical Ultrasound (LITMUS)   *Waterloo, ON*
- Developed ultrasound images through beamforming with **Python** and the **Scipy** library, before visualizing the data using **Matplotlib**
- Currently implementing **machine learning** models, developed through **Tensorflow** and **Keras**, that enhance ultrasound image quality obtained through high frame rate ultrasonography, with the goal of reducing channel count on transducers by **50%**

IT Developer   May 2022 – August 2022
Canada Revenue Agency   *Ottawa, ON*
- Developed and revamped tax-filing software using **Java** and **Angular**, by creating **JFrame** components and modernizing outdated **Angular** code
- Verified the software's functionality under heavy loads of users, mimicking the usage of the **1,000,000+** Canadians who utilize the software, through **JUnit** testing programs and custom **automation libraries**
- Completed over **100+** tickets and used **Jira**, **Agile practices**, **Git/Github**, as well as learned a magnitude of custom Canada Revenue Agency libraries to accomplish my tasks

Data Analyst   Feb. 2021 – Aug. 2021
Digitera.Interactive   *Ottawa, ON*
- Engineered **Python** bots using **Selenium** and **Beautiful Soup** that **web scraped** data from Twitter, Pinterest, and Facebook
- Bypassed **anti-bot detection algorithms** through creative problem-solving and stored the data into computer-readable formats (**XML** and **CSV**) that were fed into **machine learning** models
- Obtained over **10000+** posts at the request of clients, which were delivered to their business', accelerating their growth

Frontend Developer   July 2020 – Dec. 2020
Quento   *Ottawa, ON*
- Developed page components such as buttons, posts, and profiles by using **HTML**, **CSS**, and **Vue.js**, generating **JavaScript** templates that were pushed to **Github** through **Git**
- Assisted the backend team with developing the **NoSQL** model and streamlining data storage and retrieval through **Firebase**, expediting query times by **300%**

PROJECTS

Minesweeper Bot | *Python, PyAutoGui, Computer Vision, OOP*   July 2022 – July 2022
- Developed a bot that could complete games of minesweeper on minesweeperonline.com
- Accessed screen data through computer vision, which was fed into the minesweeper model allowing it to determine the safe squares

TECHNICAL SKILLS

Languages: Python, Java, C/C++, Dart, Bash, JavaScript, HTML/CSS, SQL, NoSQL
Frameworks: React, Vue.js, Angular, Express.js, Node.js, JUnit, JFrame, Firebase
Developer Tools: Git, Github, VS Code, PyCharm, IntelliJ, Eclipse, Vim, MongoDB, Postman, Linux
Libraries: Scipy, NumPy, Matplotlib, Tensorflow, Keras, Selenium, Beautiful Soup