

EDUCATION

Western University

Honors Specialization in Computer Science – GPA: 3.7/4.0

London, Ontario

Expected April 2024

WORK EXPERIENCE

Connect-IT – Western University

Technical Support Staff

London, Ontario

September 2021 – May 2023

- Provided **technical and customer support** for 99% of students and staff at 16 Western University residences
- Used **Hermes, Western-exclusive ticketing software**, to record all incidents with a ticket resolution rate of 95% over the 2021-2022 period
- Helped to identify and resolve campus-wide MacBook **network incompatibility issues**, connecting thousands of affected students in time for first term examinations

Western Software Engineering

Project Manager

London, Ontario

August 2022 – May 2023

- Accomplished project manager with experience leading a team of 5 students to build a successful **full-stack web application** using the **MERN stack (MongoDB, Express.js, React.js, and Node.js)**
- Demonstrated expertise in implementing **software management principles** while directing educationals and coordinating meetings to boost team skills in **JavaScript frameworks**
- Taught and enforced robust **version control** standards, improving efficiency while reducing errors in development

PROJECTS

Deep Neural Network Model for Pancreatic Cancer Research ([GitHub](#)):

October 2023 – Present

- Leading a pioneering research project to build a **deep neural network model** for analyzing **pancreatic cancer datasets**, aiming to uncover **novel insights** into the disease's mechanisms and potential treatments
- Utilizing advanced **machine learning** and **AI techniques** on single-cell genomic data to investigate Cross Cell Communications (CCC) in tumor microenvironments; using **Python, scikit-learn, PyTorch, NumPy**, and **SciPy**
- Anticipating significant discoveries in pancreatic cancer mechanisms, potentially contributing to breakthroughs in a disease with only an 8.5% five-year survival rate

Smart Doorbell Application ([GitHub](#)):

January 2023 – April 2023

- Led a team of students in developing robust and scalable **C++** smart doorbell software for the **Raspberry Pi** within a strict four-month time constraint, equipped with autonomous video recording and saving capabilities
- Implemented high-performance algorithms capable of processing hundreds of frames in millisecond latency, leading to a 30% reduction in device processing time
- Demonstrated proficiency in **OpenCV, GTKmm**, and **Wt Web Toolkit** to implement advanced features such as **motion detection, facial detection**, networking, and remote access file reading/writing capabilities

Analysis of Unsupervised and Supervised Machine Learning Algorithms ([GitHub](#)):

March 2022 – May 2022

- Designed and built custom **k-NN classification** and **K-Means clustering** machine learning algorithms from scratch in **Python** using **NumPy** and **Matplotlib**
- Enhanced the predictive accuracy of the k-NN algorithm by 20% through the implementation of extensive cross-validation techniques for hyperparameter training
- Leveraged **scikit-learn** to implement **Decision Tree** and **Agglomerative Clustering** algorithms, facilitating a comparative analysis of predictive and test accuracies between multiple machine learning models

TECHNICAL SKILLS

- Languages: **Java, Python, JavaScript/HTML/CSS, C, C++, C#, SQL, Rust, PHP**
- Frameworks: **React.js, Express.js, Node.js, Bootstrap, Tailwind CSS, TypeScript, NumPy, PyTorch**
- Tools: **Git, Linux, Docker, MongoDB, Firebase**