

Summary of Qualifications

- Proficiency in Python, C++, SQL and Bash, and solid machine learning engineering experience.
- Solid leadership skills and problem-solving skills, enhanced through project management experience.
- Strong communication and management skills, developed through cross-team collaborations and self-planning.
- Fast learner and highly self-motivated with a strong ability to work independently and to take ownership of tasks and goals.

Experience

Vector Institute for Artificial Intelligence - Machine Learning Researcher (Co-op)

Aug. 2024 - Dec. 2024

- Developed a novel transformer-based architecture for a tabular foundation model. Scaled up pipelines with massive datasets.
- Implemented data preprocessing and augmentation techniques. Performed exploratory data analysis (EDA) on massive datasets.

Aterlo Networks - Full Stack Developer (Co-op)

May. 2023 - Dec. 2023

- Collaborating with a 5-person team, developed high quality micro-services that communicate with 10M+ in-field devices world-wide for both fixed wireless and fiber support.
- Engaging with the front-end team to design and develop 10+ user interface components, elevating the user experience.

Tesla - Data Engineer (Co-op)

Mar. 2022 - Aug. 2022

- Designed a web application for a recruiting team of over 30 members, incorporated automation features such as data visualization and report generation, resulting in a remarkable 90% improvement in recruiters' data processing efficiency.
- Conducted communications across 3 departments to expand capability of the headcount tracking application, organized informative sessions to introduce new features, advancing time management and public speaking skills.

iFlytek - Machine Learning Engineer (Co-op)

Sept. 2021 - Dec. 2021

- Developed 7 paraphrase algorithms. Applied word and sentence level similarity determinations. Explored BERT-based models to improve semantic similarity performance. Pre-processed 1M+ data using generative models with back-translation.
- Experimented with combinations of paraphrasing methods, and successfully maximized the number of changes from the original sentences and ensured the fluency of sentences, resulted in a 95.8% paraphrase semantic precision rate with a recall rate of 99.2%.

Projects

Network Solutions and Micro Services | Python, gRPC, Kubernetes, Protobuf - Teamwork, Innovation

May. 2023 - Dec. 2023

- Maintained and developed the network polling infrastructure, incorporated with 50k+ network communication messages.
- Utilized management protocols such as SNMP to extract inventory and performance data from 10k+ network devices such as routers, radios and OLTs. Researched about 25+ manufactures and developed network relationships between devices.

Headcount Tracking Portal | Django, Python, SQL, JS, CSS - Project Management, Interpersonal skills

Mar. 2022 - Aug. 2022

- Allowed recruiters to automate data processing pipelines with over 17 features including data insertion and alert detection, established authentication and permission system to facilitate permission distribution and data restriction.
- Supported customized functionalities that enhanced data manipulation by interactive data dashboard and 5+ visualizations.
- Integrated administrative management system for managing headcount tracking application, ensured a 0-code-required administrative system for future maintainability by non-technical individuals.

Education

University of Waterloo | Undergraduate Honours Computer Science and Statistics (Co-op)

Sept. 2020 - Apr. 2025 (Expected)

- GPA: 91.29%, obtained Academic Excellent Standing and Term Distinction for all terms.
- Relevant Coursework: Algorithms and Data Structure, Operating System, User Interface, Introduction to Artificial Intelligence.

Awards and Scholarships

- University of Waterloo President's Research Award 2024
- University of Waterloo CS International Student Upper-Year Scholarship 2022
- University of Waterloo Research Scholarship 2021
- University of Waterloo President's Scholarship of Distinction 2021