

Computer Engineering, University of Toronto

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Portfolio: <u>https://unicooool.github.io/</u>

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EDUCATION

University of Toronto

9/2021 - 5/2026 (expected)

Bachelor of Applied Science and Engineering, minors in Engineering Business and AI, PEY co-op

 Courses: Data Structure and Algorithms / Software Communication and Design (C++) / Probabilistic Reasoning / Financial Accounting / Organizational Behavior / Market Analysis / Intro to AI and ML (Python)

SKILLS

Technical Skills: Git, Linux, Windows, Alteryx, SAP; Quartus, ModelSim, LTspice, Sue, Max; 3DSMax, Unreal Engine 4 Certification & Achievements: 2021 Fall - U of T Dean's Honour list

Computer Languages:

- C (2 years experience): Reversi AI chess, Data Structures
- C++ (1.5 years experience): Interactive Mapping Software, Object-Oriented Programming
- Python (1 year experience): PyTorch, Machine Learning (Large Language Model)
- Other Languages: Assembly by ARM, Matlab, Verilog, HTML, SQL

WORKING EXPERIENCES

Senior Technical Student

Etobicoke, ON, Canada, 9/2024 - 8/2025

Grid Maintenance Department, Toronto Hydro-Electric System Limited

- Built and maintained Alteryx automation workflows and extracted operational data from internal databases, transforming insights into Excel dashboards and reports for performance tracking and presentation in review meetings.
- Contributed to the early-stage implementation of AI initiatives, supporting automation and predictive analytics across teams.
- Coordinated daily work assignments for field engineers and internal project coordinatation (budget, data analysis, etc.) using SAP, while communicating directly with clients to resolve scheduling needs.

Solution Architect Internship

Jinan, Shandong, China, 5/2023 - 8/2023

Jinan Techfin Information Technology Co., Ltd.

- Assisted Marketing Analyst by brainstorming solutions to update the yearbook resulting in the funding proposal to be approved.
- Performed the public cloud's general development and maintenance process successfully by using the computational resources of the developed chip.
- Applied the company's proposal design guidelines to proofread the solution design proposal draft resulting in the revised proposal to be approved.

PROJECT EXPERIENCES

AI Initiatives - Chatbot

Etobicoke, ON, Canada, 9/2024 - 8/2025

Toronto Hydro-Electric System Limited

- Conducted benchmark testing and validation of AI chatbot responses for safety procedure document comparisons, identifying mismatches and inconsistencies.
- Collaborated with cross-functional teams to analyze discrepancies, document root causes, and recommend resolution steps for improved accuracy.
- · Assisted in defining testing timelines, evaluation criteria, and feedback processes to guide Proof of Concept (POC) completion and tool refinement.

Sentiment Analysis (Natural Language Processing), Python

Toronto, ON, CA, 6/2023 - 8/2023

Applied Fundamentals of Deep Learning, formly APS360 of University of Toronto

- Coordinated a team of four by analyzing the project requirements, assigning tasks and reviewing/revising their work resulting in the program to achieve 85% validation accuracy in machine learning.
- Used PyTorch and Google Colab to finish a three-sentiment analysis program which including data preprocessing, Glove word embedding, and LSTM model, used accuracy and loss to improve the model, resulted in high training/testing accuracy.

RESEARCH EXPERIENCES

Pairewise dual-level alignment for cross-prompt automated essay scoring

Jinan, Shandong, CN, 6/2023 - 8/2024

Shandong University of Finance and Economics

- Collected and processed ~20K high school essays from a public website using Python (BeautifulSoup, Pandas), organizing data by grade level and content type for training and testing.
- · Collaborated with the research team developing an NLP-based essay evaluation model inspired by GPT-2, GPT-3, and diffusion models.
- Supported data preparation that improved dataset quality and model training efficiency.
- Paper Link: https://doi.org/10.1016/j.eswa.2024.125924