

Dylan MacLeod

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EDUCATION

Ontario Tech University

Ontario, CA

Bachelor of Science in Computer Science - CO-OP - 3.8 GPA

Expected 2028

- President's List and Honour Roll Student
- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Systems Programming

EXPERIENCE

Mainframe Engineer

Sept 2025 - April 2026

CIBC | z/OS, JCL, REXX, TSO/ISPF

- Gained expertise in **IBM z/OS architecture**, batch processing workflows, and dataset management while working with enterprise job control using JCL
- Wrote automation scripts using **REXX** and **OPS/MVS** to support event-driven monitoring, alert handling, and operational task automation
- Contributed to **automated monitoring and recovery workflows** that improve system reliability and reduce manual operational intervention
- Earned **20+ technical badges** through **IBM Z Xplore** and **IBM Skills Depot** covering **z/OS operations, system automation, REXX scripting, and enterprise batch processing**

Project Coordinator

May 2025 - August 2025

CIBC | Javascript, Python, Power Automate, Excel, Sharepoint

- Coordinated deliverables across **multiple banking initiatives exceeding \$1M**, assisting project managers with progress tracking, timeline management, and risk mitigation
- Integrated customized **Power Automate** flows and scripts utilizing **Python and Javascript** to automate Outlook email routing, manual efforts, and SharePoint file organization, reducing manual report generation time and minimizing human error

PROJECTS

Semantic Search Engine | C++, Python, ONNX Runtime, PostgreSQL, HNSW, NLP

November 2024

- Designed and implemented a **semantic search engine** for Wikipedia articles using transformer embeddings and approximate nearest-neighbor (HNSW) indexing for similarity-based retrieval
- Integrated the **all-MiniLM-L6-v2 transformer model via ONNX Runtime** to generate **384-dimensional embeddings**, achieving **~100 articles/sec embedding throughput**
- Implemented a **vector storage layer using PostgreSQL with HNSW indexing**, enabling scalable similarity search across 100k+ indexed documents
- Achieved **~45 ms average semantic query latency** for top-K results across **10k indexed Wikipedia articles**, returning top-K results using pretrained language model embeddings and HNSW ANN indexing.

Flash.AI | React, Express.js, MongoDB, JavaScript, Node.js, TailwindCSS

February 2025

- Engineered a full-stack AI platform at HackHive 2025, placing **2nd out of 86 teams (Top 2.3%)**
- Built backend APIs using **Node.js and Express** to generate quizzes from uploaded documents in **<10 seconds per request**
- Implemented **JWT-based authentication** and secure credential storage using **MongoDB**, enabling protected user sessions
- Developed a **responsive React interface** allowing users to upload documents, generate quizzes, and manage profiles across devices

TECHNICAL SKILLS

Languages: Python, C++, JCL, REXX, Java, JavaScript, TypeScript, HTML/CSS, SQL

Frameworks: React, Node.js, Express, TailwindCSS

Developer Tools: Git, Linux, Windows, z/OS, Google Cloud Platform, Visual Studio, IntelliJ

Libraries: pandas, NumPy, Matplotlib, Passport JS, Salt/Hashing

Skills: OOP, SDSF, RACF, TSO/ISPF, MS 365, Sharepoint, Excel, Power Automate