MICHAEL SCOTT

Education

University Expected Graduation: May 2026

Bachelor of Computer Engineering — Minor Artificial Intelligence

Location

- Golden Key Honours Scholar GPA: 3.78
- Courses: Software Engineering Practice, Applied Machine Learning, Operating Systems, Computer Architecture, Model-Based Programming, Algorithms and Data Structures, Intro. to Software Engineering

Work Experience

Tech Company May 2024 – Sep 2024

Machine Learning Engineer Intern

Location

- Engineered Large Language Models (LLMs), including BERT and Attention Models, to analyze software engineering requirements and generate accurate dependency lists, improving project planning efficiency by 37%
- Analyzed 1200+ software requirements monthly using scikit-learn (classification models), spaCy, and NLTK in Python, saving the company \$20,000 annually by decreasing project lead times
- Integrated **TF-IDF vectorization** to detect similarities in software requirements, focusing on **preprocessing**, **model training**, **hyperparameter tuning** and **clustering** to optimize **NLP** analysis processes

Tech Company May 2023 – Sep 2023

Backend Engineer Intern

Location

- Designed 30+ AWS Lambda Functions, strategically leveraging Lambda layers to increase processing speed by 35% and re-usability by 52%, resulting in cost savings of \$1,000 per large scale deployment
- Implemented 15+ server less workflows using AWS Step Functions, seamlessly integrating REST APIs and rigorously tested with Postman, resulting in a 65% reduction in execution time and enhanced operational efficiency
- Crafted a **Spring Boot** application with a **Drools** logic engine, containerized it using **Docker**, and seamlessly deployed it on **AWS** using **EC2**, strategically allocating cloud resources to ensure enhanced scalability and reliability

Tech Company Jun 2022 – Sep 2022

Software Engineer Intern

Location

- Programmed and deployed a **Python**-based data migration pipeline on **Azure**, achieving a **50% reduction** in transfer time for **100+ terabytes** of critical business data
- Centralized a SQL database infrastructure on Azure, enhancing data accessibility and security for 50+ stakeholders, resulting in a 30% improvement in query performance across the organization

Projects

McGill Scheduler | Website | Source Code

ReactJS | Spring Boot | PostgreSQL

- Developed and deployed a full-stack web application that enhanced academic experiences of 1,000+ McGill students
- $\bullet \ \ \text{Utilized } \textbf{PostgreSQL} \ \ \text{for data storage}, \textbf{Spring Boot} \ \ \text{for a } \textbf{RESTful API} \ \ \text{backend}, \ \text{and } \textbf{ReactJS} \ \ \text{for the user interface}$

Empor | Website

NextJS | TypeScript | Spring Boot

• Led the development of a full-stack marketplace application for 1,000+ university students, utilizing NextJS and TypeScript for the frontend, Prisma as the ORM, Supabase for the database, and a Spring Boot backend

Premier League Match Predictor | Website | Source Code

Pandas | Scikit-Learn | Python

• Created a model to predict matches, integrating data scraping with pandas and machine learning with scikit-learn

Leadership

SWErikCodes | TikTok | YouTube | Instagram

Jun 2023 – Present

- Created educational coding content for 75,000+ developers, with 4,200,000+ impressions per month
- Produced coding tutorials on advanced topics such as data structures, algorithms, and software design principles

Technical Skills

Languages: Python, Java, SQL, HTML5, CSS, JavaScript, Go, C, VHDL

Developer Tools: AWS, Postman, PowerBI, Git, Azure, Docker, Jira

Libraries/Frameworks: Spring Boot, ReactJS, PostgreSQL, NextJS, VueJS, NodeJS