

Daniel Di Giovanni

[linkedin.com/in/daniel-di-giovanni](https://www.linkedin.com/in/daniel-di-giovanni) | github.com/danpythonman | danieldigiovanni.com

dannyjdigio@gmail.com | (647) 884-8344

Education

York University <i>Master of Science in Computer Science</i>	Toronto, ON, Canada 2025 — present (expected graduation in 2027)
York University <i>Bachelor of Engineering in Software Engineering (GPA: 3.8/4.0)</i>	Toronto, ON, Canada 2020 — 2025

Work Experience

Software Engineering Co-op <i>PointClickCare</i>	January 2023 - August 2023 <i>Toronto, ON, Canada (Full Time)</i>
<ul style="list-style-type: none">Wrote SQL queries to track SLA metrics across 10,000+ requests, enabling the team to increase visibility.Automated integration testing for an ETL pipeline with Jenkins, reducing QA effort and increasing deployment confidence.Tracked cloud telemetry events using Java and KQL, enabling real-time observability of distributed systems on Azure.Provisioned and modified Azure cloud resources across development and production environments using Terraform.Extended a Java Spring Boot API with new endpoints to deliver time-sensitive metrics to a React-based dashboard.	
Full Stack Developer <i>Dwella Investing</i>	June 2021 - December 2021 <i>Remote (Contract)</i>
<ul style="list-style-type: none">Designed and implemented backend REST APIs with Node.js and Express, writing regulation-compliant business logic.Built an interactive frontend with React and Material UI, supporting real-time updates from the Ethereum blockchain.Implemented JWT-based authorization and designed MongoDB schemas to ensure secure, efficient backend operations.	

Other Experience

Peer Assisted Study Session (PASS) Leader <i>York University</i>	September 2024 - April 2025 <i>Toronto, ON, Canada (Part Time)</i>
<ul style="list-style-type: none">Facilitated study sessions for discrete mathematics and physics, encouraging collaboration between students.Prepared weekly study exercises following course material, incorporating students' feedback to improve the sessions.	
E-Commerce Advisor <i>Digital Main Street</i>	June 2022 - October 2022 <i>Remote (Contract)</i>
<ul style="list-style-type: none">Built a total of six ecommerce websites using Shopify, Square, and Bookmark, incorporating SEO best practices.Assisted seven clients in accessing a \$2,400 grant and developed personalized digital investment plans.	

Projects

Captstone Project github.com/ENG4000-SOSO/genetic-algorithms	September 2024 - April 2025
<ul style="list-style-type: none">Interfaced with the Canadian Space Agency to gather requirements and tailor a system to their needs.Designed and implemented a scheduling algorithm, performing over 100x faster than the existing system.Used Python to implement a network flow algorithm, a bin packing algorithm, and a genetic algorithm.Deployed the system on AWS using Terraform, reducing costs by using Fargate on-demand for high-power computations.	
GPT-2 from Scratch github.com/Danpythonman/gpt-2	July 2025
<ul style="list-style-type: none">Developed a clone of GPT-2 following it's publicly-available architecture. Fully implemented multilayer perceptrons, self-attention mechanisms, and GPU-powered training loops using PyTorch and CUDA.Implemented the GPT-2 tokenizer using byte pair encoding (BPE) from scratch in Python, replicating the subword tokenization process used in LLMs. Gained insights into vocabulary compression and tokenization mechanics.	
Automatic differentiation Engine from Scratch github.com/Danpythonman/micrograd	May 2025
<ul style="list-style-type: none">Implemented an autograd engine using computation graphs and automatic differentiation and backpropagation from scratch in Python. Demonstrates deep understanding of how neural networks learn.	
GoBidder - Distributed Auction Platform github.com/KaranpreetRaja/GoBidder	December 2024
<ul style="list-style-type: none">Built a microservices-based auction platform using Java and Go. Integrated Kafka for inter-service messaging, allowing scalable, decoupled services.Implemented WebSocket middleware in Go for real-time notifications, with an Nginx reverse proxy as the entry point.	
MNIST Digit Predictor github.com/Danpythonman/mnist_digit_predictor	September 2024
<ul style="list-style-type: none">Trained a neural network on the MNIST dataset with PyTorch, achieving ~100% accuracy on validation split.Deployed the model as an AWS Lambda function and built a static frontend with Vite.	

Technical Skills Summary

Machine Learning	Python, PyTorch, CUDA, NumPy, Matplotlib, Pandas, Jupyter Notebooks, Anaconda
Full Stack	React, Flask, FastAPI, Java, Spring Boot, NodeJs, ExpressJS, MySQL, PostgreSQL, MongoDB
DevOps and Cloud	Docker, Terraform, Linux, Systemd, Jenkins, Kubernetes, Nginx, AWS