

Tygo Crawley

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EDUCATION

Western University - *B.ESc, Software Engineering*

2022 - 2027 (expected)

- GPA 3.7 / 4.0. London, Canada.

EXPERIENCE

Thames Valley Financial - *AI Transformation & Operations Intern*

May 2026 - present

- Leading the technology transformation of an early-stage startup: self-hosted GitHub Enterprise, GCP, and Terraform CI/CD pipelines.
- Migrating in-house Excel models to a Python calculation API built with FastAPI, running on GCP.
- Built the company website with Astro (tvfi.ca).

Scotiabank - *ML Engineer Intern*

Sept 2025 - May 2026

- Implemented an LLM-as-a-judge evaluation and red-teaming framework (Python, LangChain, Vertex AI), cutting the evaluation cycle from over one week to 50 minutes across 1000+ examples.
- Engineered automated ETL pipelines on GCP with Spark and Airflow, reducing processing time by 60% across two business lines.
- Architected the migration of PowerBI analytics tables from Excel DAX to BigQuery, reducing load times by 40%.

Durham Employment & Newcomer Centre - *IT Administrator*

Summers 2024 & 2025

- Developed a production RAG chatbot for internal operations on a fully self-hosted, open-source stack, preserving complete data sovereignty.
- Configured and deployed Windows devices, network routers, and smart security systems.

LEADERSHIP

Western Engineering Autopilot - *Team Lead, Perception*

Oct 2024 - present

- Directing a team of 11 students building an autonomous vehicle vision system using cameras and LiDAR.
- Responsible for coordination and development of multi-sensor data pipelines and sensing algorithms.

PROJECTS

LLM from scratch

Python, PyTorch, CUDA

- Built a transformer-based language model from scratch: tokenizer, dataloader, attention, architecture, and training loop.

Agentic schedule assistant

OpenAI Agents SDK, MCP

- Schedule assistant agent with a custom MCP server that summarizes a calendar and suggests optimizations.

EuroTravel

Angular, Node, AWS

- Web app for searching European destinations, backed by SQLite and deployed on AWS.

SKILLS

Programming: Python, C/C++, JavaScript, SQL, shell scripting

Systems & tools: Linux/Unix, Docker, Kubernetes, Terraform, GitHub Actions

Frameworks & platforms: GCP, AWS, Angular, React, Node.js, Next.js, FastAPI, Django

AI & data: PyTorch, TensorFlow, NumPy, Pandas, Spark, Hadoop, scikit-learn, OpenCV