

David Olejniczak

905-302-8846 | david.olejniczak@icloud.com | in/david-olejniczak | github.com/davidolejniczak

Education & Certifications

McMaster University

Expected May 2027

B.Eng. Bachelor of Software Engineering (Co-op) – CGPA 3.5

- Relevant Coursework: Data Structures & Algorithms, Operating Systems, Databases, Object-Oriented Programming in Java

Microsoft Azure AI Essentials Professional Certificate by Microsoft

Experience

Software Engineering Associate

Jan 2025 – Present

Ontario Ministry of Transportation | Engineering Materials Office

Toronto, ON

- Created data ingestion and processing systems using C#, VBA, and Python to automate 300+ Excel submissions, reducing data errors, and accelerating turnaround for results from 220+ labs in The MTO Proficiency Sample Testing Program.
- Developed a full-stack web app using JavaScript, TypeScript, HTML5, and CSS, mapping 1,100+ quarries and pits and incorporated external stakeholder feedback to deliver a more user-friendly interface for 50+ users.
- Engineered end-to-end automation pipelines in Python and SQL, reducing per-lab report creation time from 10 minutes to under 1 minute, saving hours weekly by automating previously manual processes.
- Analyzed over 20,000 provincial materials records in Python using Pandas, NumPy, and Scikit-learn, applying jackknife validation to inform 75+ contract and research decisions and enhance provincial construction oversight.
- Worked cross-functionally with engineers to capture requirements, validate outputs, and deliver automation tools, driving long-term adoption through maintainable code, automated testing, and CI/CD integration.

Projects

Race Atlas – Cycling Database and Website

- Built a cloud-based backend using Java Spring Boot and PostgreSQL, hosted on Heroku, that exposes REST APIs to index and serve over 800 riders/teams and 4,000+ race results.
- Shipped a website using React, Node.js, and TypeScript, hosted on Vercel, that consumes the Spring Boot API providing cyclists with an intuitive interface to search for rider information and access Strava links.

Stat Grubb – Python Statistical Package

- Published a statistical Python package on PyPI using C++, averaging ~100 monthly downloads.
- Integrated a CMake build system, automated testing, and packaging pipelines for consistent cross-platform performance.

BrickROI – Lego Investment Analytics Tool

- Created a LEGO ROI predictor using Python, Selenium, and Google Cloud Platform (GCP), applying regression models to 10 years of pricing data
- Automated price alerts via APIs to deliver monthly updates, identifying LEGO categories with 12–15% ROI gains and helping collectors make data-driven purchases.

Skills

Languages: Python, Java (Spring Boot/JUnit), C#, C++, JavaScript/TypeScript, SQL, PowerShell, HTML5, CSS
Frameworks/Tools: React, Node.js, Flask, CMake, Docker, Git, GCP, Azure, Heroku, Vercel, Agile, Microservices
Databases: MS Access, PostgreSQL, SQLite, IBM DB2

Awards & Leadership

McMaster University — Awarded the McMaster Engineering Award of Excellence

Professional Cycling — Gold Medalist at Canada Summer Games; 3x National Champion; 5x Provincial Champion; 3rd UCI 2.2 Tour de Krupie