

David Olejniczak

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EDUCATION

McMaster University

Expected May 2027

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

- Relevant Coursework: Data Structures & Algorithms, Operating Systems, Databases, Software Engineering

EXPERIENCE

Engineering Associate

Jan 2025 – Present

Ontario Ministry of Transportation | Engineering Materials Office – Toronto, ON

- Engineered automation pipelines in Python with MS Access (SQL) storage and multiprocessing, reducing report creation time from 10 minutes to under 1 minute per lab by automating previously manual processes.
- Automated report generation and emailing to 225+ contractors/labs, streamlining 300+ Excel result submissions and improving turnaround time for results in the CCIL RAQS program.
- Collaborated with engineers and managers to gather requirements, validate results, and ship automation tools that became part of standard reporting workflows.
- Analyzed 100k+ provincial engineering dataset records with Pandas/NumPy/scikit-learn, applying jackknife validation; insights influenced MTO referee contracts and supported quality oversight decisions.
- Developed and iterated a stakeholder-facing web app (JavaScript, HTML/CSS, Leaflet.js) mapping 1,000+ quarries and pits; continuously added features based on feedback from OSSGA, improving accessibility for 50+ external users.
- Improved reliability of deliverables by writing maintainable, documented code, implementing automated test scripts, and supporting CI/CD deployment in internal environments.

PROJECTS

RaceAtlas – Pro Rider and Race Database

- Built a Java Spring Boot + PostgreSQL backend (Heroku) with REST APIs (<200ms latency) indexing 800+ riders/teams and 4,000+ race results.
- Developed a responsive frontend in React and TypeScript with Tailwind CSS, hosted on Vercel, that consumes the Spring Boot API and provides cyclists with an intuitive interface to search rider information and access Strava links.

Stat Grubb – PyPi Package for Outlier Detection

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

BrickROI – Lego Investment Analytics Tool

- Created a Python + Google Cloud Platform (GCP) analytics tool applying regression models to 10 years of Lego pricing data to forecast ROI.
- Automated alerts via Google Sheets API delivering 100+ monthly updates; identified Lego categories with 12–15% ROI gains, helping collectors make data-driven purchases.

SKILLS & INTERESTS

Languages: Python, Java, C++, JavaScript/TypeScript, SQL, Bash, PowerShell, HTML, CSS

Frameworks/Tools : Spring Boot, React, Node.js, Flask, FastAPI, Leaflet.js, Tailwind CSS, CMake

Cloud/DevOps & Data: Docker, Git, Google Cloud Platform (GCP), Heroku, Vercel, MS Access, PostgreSQL, SQLite, IBM DB2

Interests: Cycling (ex-pro road cyclist), Triathlon, Chess

AWARDS & LEADERSHIP

McMaster University — Awarded the McMaster Engineering Award of Excellence

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