

OLIVER PAUL FILSO

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Milan, Italy · Canadian Citizen

EDUCATION

Politecnico di Milano

MSc Energy Engineering (Power Generation Track)

Focus: Energy Economics · Electric Power Systems · Electrochemical Energy Conversion

Milan, Italy
Expected 2027

University of Western Ontario

BESc Chemical Engineering with Co-op | Dean's Honour List (88% Upper-Year Average)

Focus: Nuclear Eng · Polymers · Process Control · Fuel Systems · Carbon Footprint

London, Canada
2019 – 2024

PROFESSIONAL EXPERIENCE

Filso Dynamics (filsodynamics.com)

Founder | Engineering Simulation Software

Milan, Italy
2026 – Present

- Built and run a browser suite of 19 engineering simulations with 3-D plant views and PDF reports (**JavaScript**, **Three.js**).
- Energy asset map and plant siting tool; **Cloudflare** hosting, **Stripe** licensing, **Playwright** test suite.

Mother Parker's Tea & Coffee

Manufacturing Systems Engineering | Packaging Development

Total 28 months across 3 recurring technical rotations

Mississauga, Canada
June 2021 – Jan 2025

- Developed automated KPI dashboards & shift reports using **SQL** and **VBA** standardized across 4 manufacturing sites to track OEE, yield, and labor utilization driving company-wide cost-saving initiatives.
- Applied **Lean Manufacturing** and **6-Sigma** principles to investigate ERP data (AX Dynamics), resolving inventory discrepancies that caused illogical volatility in monthly financial reporting.
- Modeled material movements for a 24/7 warehouse automation feasibility study; deciphered raw ERP transactions to quantify physical pallet journeys and justified potential high-capital automation investments.
- Facilitated R&D capsule validation by drafting project charters, scheduling pilot trials, and standardizing a material-peel test protocol using a **tensile testing machine** to ensure quality benchmarks are met.

TECHNICAL PROJECTS

Combined Cycle Power Plant Optimization

Simulated a 242 MW HRSG using **IAPWS-IF97** steam property modeling; optimized evaporator pressure under pinch-point and approach temperature constraints via Second Law (Exergy) analysis to maximize thermal efficiency.

Fall 2025

EV Battery Pack Sizing & Aging Model (MATLAB)

Designed a Li-ion battery pack for a target power profile; modeled electrode kinetics and degradation parameters (LLI, LAM) to predict End-of-Life efficiency, validating results against experimental lab data.

Spring 2025

Green Ammonia Plant Design & Feasibility Study (Capstone)

Designed a 300-tonne/day biomass-to-ammonia process using **Aspen HYSYS**; modelled WGS reactor kinetics to optimize yield (>80%) and integrated Carbon Capture (CCUS). Performed HAZOP safety study and economic analysis, validating a \$32.7M CAPEX project.

Spring 2024

SKILLS & INTERESTS

Analysis: Excel, VBA, SQL, Matlab, Aspen HYSYS, LaTeX, Generative AI
Languages: English (Native), French (B1), Italian (A1)
Activities: Ice Hockey, Skiing, Weightlifting, Cooking, Financial Markets, Geopolitics