
Summary

Results-driven Mechanical Engineer with proven expertise in optimizing production lines, enhancing thermal management systems through CFD analysis, and driving continuous improvement in engine maintenance. Proficient in CAD, simulation software, and data analysis tools.

Education

Bachelor of Mechanical Engineering (2025)
Polytechnique Montréal

Professional Experience

Intern in Engine Maintenance and Improvement (Pratt & Whitney Canada) (2024-2025)

- Led continuous improvement initiatives within PT6 & PW210 engine MRO operations.
- Utilized Power BI & SAP for performance monitoring to resolve process bottlenecks.
- Collaborated with engineering teams to identify and address root causes of quality issues.
- Created CAD assemblies in CATIA V5 for maintenance support.

Intern in Production Line Optimization and Assembly Processes (Pharmascience) (2024)

- Implemented technical solutions to optimize packaging processes, improving efficiency while reducing costs.
- Conducted performance analysis and developed troubleshooting guides.
- Ensured compatibility of new solutions with existing equipment.

Capstone in optimization of a Thermal Management System for High Discharge Rate Batteries (MLAB) (2023-2024)

- Conducted CFD and topological optimization for enhanced thermal performance.
- Developed electrical and thermal models, and designed a submerged cooling system.
- Established a test bench for validation, correlating simulation results with real-world performance.
- Worked with clients to integrate and test cooling solutions using additive manufacturing.

Project Management Intern - Electromechanical Building Systems (CSSDM) (2023)

- Assisted in project coordination and schedule monitoring.
- Collaborated on plan verification and project closure.
- Analyzed project data to drive process improvements.

Technical Skills

Mechanical & Simulation Software: CATIA V5, SolidWorks, AutoCAD, Simlab CFD, SIMCENTER 3D, NASTRAN

Programming & Data Analysis: Python, MATLAB, VBA, Power BI, SAP, R, PHP/MySQL, Arduino IDE