

Noah Ferrarotto

Mechanical engineering master's student looking to start a career in the world of composites with a dynamic and creative team.

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EDUCATION

M.Sc., Mechanical Engineering · McGill University

2020 - 2022

- Thesis: Process Monitoring of Aerospace-Grade 3D Printing
- Supervised by Prof. Pascal Hubert
- Industrial partnership with Hutchinson Aerospace

B.Eng., Mechanical Engineering · McGill University

2016 - 2020

- Graduated with distinction (3.71 GPA)

EMPLOYMENT

Student Researcher · Hutchinson Aerospace and McGill University

May 2019 - Aug. 2019

- Developed a method for making 3D-printed cores for liquid composite moulding.
- Manufactured composite test samples using industrial-grade techniques and materials.
- Presented this method's potential for manufacturing of more complex composite parts to members of faculty and industry.

Manufacturing Engineering Intern · MedXL, Inc.

May 2018 - Aug. 2018

- Implemented practical solutions to improve production lines.
- Designed robust replacement parts to increase production line longevity and reliability.
- Created manufacturing drawings and visited suppliers to ensure part quality and on-time delivery.
- Assisted mechanics in servicing the machinery.

LEADERSHIP AND INVOLVEMENT

Technical Director and Hydrofoil Team Lead · Rafale ÉTS

Sept. 2019 - Current

- Sparked the first ever design team partnership between McGill and ETS (École de Technologie Supérieure).
- Designed the hydrofoils for Canada's first student-built Moth.
- Presented the team's work at the 2021 Foiling Week Sustainable Moth Challenge.

Skipper · McGill Sailing Team

Sept. 2017 - Current

- Raced and trained throughout undergraduate and graduate studies.
- Helped secure overall win of the 2018 Canadian Intercollegiate Championship.
- Represented only Canadian team in highly competitive New-England regattas.
- Fostered team cohesion by organizing cross-training and social events.

Chassis Team Member · McGill Formula Electric

Sept. 2016 - Aug. 2018

- Designed carbon fiber laminates to maximize strength, stiffness and weight savings.
- Implemented those laminates in the design of the chassis monocoque in collaboration with suspension and powertrain teams.
- Prepared laminate samples for physical testing and validation of strength calculations.
- Participated in weekly meetings and design reviews to orient new members and evaluate design progression.

AWARDS

Research Grant · Natural Sciences and Engineering Research Council of Canada

2020 - 2022

- Awarded \$25,000 in funding for my research in additive manufacturing of aerospace composites.

Undergraduate Research Winner · McGill Faculty of Engineering

2019

- Awarded best overall poster presentation in the aerospace category.

Nomination for Excellence in Written Communication · McGill Writing Centre

2017

- Shortlisted among the 8 best engineering research papers across 259 entries within the Communication in Engineering course.

SKILLS

DESIGN WITH COMPOSITES: Laminate design, CAD, FEA, resin cure simulation, and ply nesting.

PROCESSING OF COMPOSITES: Resin characterization, prepreg, infusion, fused filament fabrication (FFF), and wet layup.

SHOP FLOOR: 3-Axis CNC milling, laser and waterjet cutting, and TIG welding.

SOFTWARE: Abaqus, AutoCAD, SolidWorks, NX, Fusion 360, and Raven (resin cure simulator).

LANGUAGES: fluent in English and French, and proficient with MATLAB and Excel VBA.