

Olivier Lamarre

Planetary Roboticist & Aerospace Engineer

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📍 Canada, Earth



Experience

Long-Distance Navigation Autonomy Intern

NASA Jet Propulsion Laboratory, California Institute of Technology

📅 Sep 2019 – Nov 2020

📍 Pasadena (CA), USA

- Assisting the MAARS (Machine learning-based Analytics for Automated Rover Systems) research group, mentored by Dr. Masahiro Ono
- Create a compression framework for long-term planetary navigation autonomy
- Deploy algorithms to real research platforms and coordinate extensive field tests

Resource-Aware Navigation Intern

NASA Jet Propulsion Laboratory, California Institute of Technology

📅 Sep 2018 – May 2019

📍 Pasadena (CA), USA

- Develop approximation methods to provide kilometer-scale resource-aware strategic planning capabilities to future solar-powered Mars rovers
- Support navigation autonomy development for the PUFFER micro-rover project

Mars Rover Project Founder and Leader

McGill Robotics Engineering Design Team

📅 Jul 2014 – Jul 2017

📍 Montreal, Canada

- Manage a team of 60 members to design tele-operated multipurpose Mars rovers
- Compete in the University Rover Challenge and European Rover Challenge
- Lead field tests at the Canadian Space Agency & Mars Desert Research Station

Education

Ph.D. Applied Science – Aerospace Engineering and Robotics

University of Toronto Institute for Aerospace Studies

📅 Sep 2017 – 2023 (expected)

📍 Toronto, Canada

- Ph.D. candidate with the Space and Terrestrial Autonomous Robotics Systems (STARS) Laboratory, supervised by Prof. Jonathan Kelly.
- GPA: 3.9/4.0

B. Eng. Mechanical Engineering (Major) & Geology (Minor)

McGill University

📅 Jan 2013 – May 2017

📍 Montreal, Canada

- Extracurricular: McGill Robotics Mars Rover Team (Founder & Lead)
- Societies: Golden Key International Honour Society, McGill Institute of Aerospace Engineering

Honors & Awards



Postgraduate Scholarship Award

Natural Sciences and Engineering Research Council of Canada
\$63,000 over 3 years



Graduate Fellowship

NASA Jet Propulsion Laboratory
\$15,000 over 6 months



Ontario Graduate Scholarship (x2)

\$20,000 over 2 years



Third Place Internationally (x2)

European Rover Challenge
(2015 and 2016 competitions)



Dean's Honour List

McGill University
Faculty of Engineering

Skills & Strengths

Project Management

Public Speaking

Teamwork

Community Outreach

Leadership

Mission Systems

Python 2/3

Robot Operating System (ROS)

C++

MATLAB

Scuba Certifications

Advanced Diver

PADI (received 2014)

Peak Performance Buoyancy

PADI Specialty Diver (received 2014)

Languages

English

French

Spanish

