

# Olivier Lamarre

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I am a PhD student in planetary robotics and aerospace engineering with a strong interest in long-term autonomous navigation of solar-powered rovers in extra-terrestrial environments in addition to the related system-level challenges.

I believe in space exploration to improve life on Earth & beyond.

## Relevant Experience

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Sept. – May 2019



### **Resource-Aware Navigation Intern** | *NASA Jet Propulsion Laboratory*

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

May – August 2017



### **Rover Perception and Mapping Intern** | *NASA Jet Propulsion Laboratory*

- + Assist the Robotic Systems Estimation, Decision and Control Group;
- + Increase the stereovision mapping capabilities of rovers in the goal of improving the Autonomous navigation functionalities of the Mars 2020 rover.

July 2014 – 2017



### **Mars Rover Project Founder and Leader** | *McGill Robotics Design Team*

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

## Education

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2017 – 2021

(Expected)



### **Doctorate of Applied Science – Aerospace Engineering and Robotics**

*University of Toronto, Institute of Aerospace Studies (UTIAS), Canada*

PhD student with the Space and Terrestrial Autonomous Robotics Systems (STARS) Laboratory and perform research under the supervision of Dr. Jonathan Kelly. GPA: 3.9/4.0

2013 – 2017



### **B. Eng., Mechanical Engineering (Major) & Geology (Minor)**

*McGill University, Canada*

Societies: Golden Key International Honour Society, McGill Institute of Aerospace Engineering.

## Notable Honors & Awards

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2019

**JPL Graduate Fellowship** | *NASA Jet Propulsion Laboratory*

2018 and 2019

**Ontario Graduate Scholarship** | *Ontario Government*

2015 and 2016

**Third Place Worldwide** | *European Rover Challenge*

2013

**Dean's Honor List** | *McGill University*

## Skills

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**Programming:** ROS (advanced), Python (advanced), C++ (intermediate), C (intermediate), MATLAB (advanced);

**Computer Aided Design:** Autodesk Inventor, SolidWorks;

**Languages:** English (bilingual), French (native), Spanish (intermediate);