

RIDDHIMAN ROY

Student Engineer

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riddhiman-roy

EXPERIENCE

Research Intern

Department of Civil and Mineral Engineering, UofT

May 2021 – Ongoing Toronto, ON, Canada

- Worked as part of the Saxe-Posen-Maclean (SPM) research group on climate modelling projects
- Determined feasibility of transferring proprietary light duty vehicle greenhouse gas emissions model from R to Python.
- Investigated the potential for e-fuels in mitigation of greenhouse gas emissions of light duty vehicles in the US.
- Presented preliminary results to various stakeholders and undergraduate summer research conference.

Programmer on Project DarkMatter

University of Toronto Aerospace Team

Oct 2020 – September 2021 Toronto, ON, Canada

- Started as a programmer on Project DarkMatter, UTAT's engine simulator to work with a team to translate the original model from MATLAB to Python.
- Designed and implemented a new class structure for various required processes and components such as combustion, propulsion, fluid and pressurant*

Pad Team Member

Launch Canada

May 2021 - Ongoing Toronto, ON, Canada

- Joined Launch Canada's Liquid Rocket Engine Test Campaign, to test an LR-101 LOX-Kerosene Engine (capable of 4.5kN of thrust).
- Redesigned existing test stand to accommodate a new test site and manufactured the aforementioned new test stand and produced a detailed procedure for efficient assembly and disassembly

Second Place at Biomedical Engineering Competition (BMEC)

Club for Undergraduate Biomedical Engineering (CUBE)

February 27 – 28, 2021 Toronto, ON, Canada

- Placed 2nd out of 20 in a team of 4
- Designed 'Mediway' - an application to route ambulances across a network of hospitals to reduce ER stress and physician burnout - and its information flowchart and the user interface

Made My Own Website

Self

May 2021 – Ongoing Toronto, ON, Canada

- Designed and published my own website, at riddhimanroy.com

INTERESTS

Propulsion Space Systems
Human Space Flight Renewable Energy
Climate Change

Badminton Cycling Drawing

LANGUAGES

Python C MATLAB Web Design

English Hindi Spanish Bengali

EDUCATION

BASc in Engineering Science

University of Toronto

September 2020 – Ongoing

International Baccalaureate Diploma

American School of Doha

August 2016 – May 2020

Middle School Diploma

The Village School, Houston

August 2014 – July 2016

TRAINING

CS50: Introduction to Computer Programming

Harvard University

May 2019 – December 2019

Summer College Preview Program

Carnegie Mellon University - Qatar

May 2019 – August 2019

Course in Renewable Energy Engineering

Brown University

June 2018 – August 2018