

Omar Husain

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EDUCATION

BASc. Mechanical Engineering University of Ottawa

2015 - 2019 (Expected)

- GPA: 9.53 (out of 10.00)
- Awards: Dean's Honour List, Merit Scholarship, Altamira Scholarship

Bachelor of Arts (Honours) McGill University Montreal, QC

2011 - 2014

- Double Major: Political Science and Philosophy

SKILLS

Software: Solidworks, MATLAB, MS Office, Multisim, SFrame

Programming: C, Python, JAVA, Arduino, VBA, HTML

Machining: Vertical mill, lathe, spot welding, soldering, drill press

WORK EXPERIENCE

Program Assistant, Citizenship and Immigration Canada Case Processing Center – Ottawa

March 2015 - September 2017

- Employed every summer since summer 2015
- Positions: Program Assistant in the Registry and Archives, Program Assistant in the Temporary Visa Section
- Tasked with administrative organization of permanent resident paper files
- Gained experience developing software tools to automate the archiving process
- Used excel VBA to create two macros to increase efficiency in the logs of outgoing and incoming paper files
- These tools made the archiving process up to 60 times faster

ACADEMIC PROJECTS

University of Ottawa Rocketry Team

February 2017-October 2017

- Goal: To build a hybrid rocket capable of achieving a target apogee of 10,000ft
- Sub teams: Machining, Software
- Positions: Principle machinist, Ignition system programmer
- Manufactured high precision parts; such as end-caps, nozzle flange, and injector manifold out of 6061 Aluminum using a lathe
- Programmed a state machine for the ignition system to be able to ignite the fuel and control a servo valve for the oxidizer flow
- Program is written in Arduino and can be found at <https://github.com/uOstar/Arduino-Ignition>

Self-Leveling Glider

October 2017-Present

- Developed a self-leveling glider using an RC glider, a microcontroller, an IMU and 3 servos
- Wrote software to collect sensor data from the IMU and create a PID controller to output stable servo commands
- Wrote software to be able to automatically tune the PID controller in matlab given the data collected by the IMU
- For Source Code: Consult https://github.com/omarHus/ELG3336_Self-Leveling-Glider

INTERESTS

Flying: Pursuing a private pilot's license at Rockcliffe Flying Club, Ottawa. Completed ground school and have amassed 6 hours of flying so far

LANGUAGES

Fluent in English, Proficient in French (E-C-C on federal Government tests)