# Juliette Regimbal

#### Education

2011–2015 High School Diploma, Watchung Hills Regional High School, Warren NJ.

High school completed with courses focusing on basic engineering, math, and science. Independent research done in final year. Graduated as member of the National Honor Society with a GPA of 3.86.

2015–Present **B.Eng.**, *McGill University*, Montréal QC, Computer Engineering *Minor Mathematics*. J.W. McConnel Scholarship.

### Experience

#### Vocational

Summer Intern, Thorlabs, Inc., Newton NJ.

2012, 2013, Conducted experiments to verify the specifications of imaging and optics equipment under

supervision of trained engineers and scientists. Projects include finding the transmission curves of bandpass filters, the source and behavior of a noise pattern in a CCD camera for life science use, and the emission spectra of a fluoride fiber optic cable to investigate the potential to use it in a near-IR optical pump.

May-June Stagiaire, Matrox Electronic Systems Ltd., Dorval QC.

2016 Worked in Video Products Group with software engineers.

Worked in a team towards the release of a new version of their SDK, and on new features for later versions.

Miscellaneous

2011–2015 Programmer, FIRST Robotics Team 41, Warren NJ.

Participated as member and lead programmer. Provided experience with hand tools, electrical equipment, and C++ programming. Administration experience by helping organize a growing team and teaching younger students how to program in C++.

## Languages

English Native

(by proficiency)

French Proficient

## Computer skills

Programming C/C++, Python, Java, Rust, VHDL, Haskell,  $x86\_64$  and ARM assembly Languages

Familiar With UNIX-like systems (especially Linux), Scrum-style Agile, FPGAs, Microcontrollers, and Git

## **Projects**

2015 Blade Flapping in Quadrotors, Independent Research, Warren NJ.

Conducted individual research into blade flapping angles in small quadrotors and their effect on stability. Research involved designing programs to monitor the rotational velocity of the rotor, modelling expected flapping angles using existing works, and numerous experiments in a wind tunnel. The project specifically focused on how varied accelerations might cause deviation from typical models. Worked with Dr. Sophia Gershman as an advisor.