Juliette Regimbal

Education

2015–2020 **B.Eng. Computer Engineering**, *McGill University*, Montréal QC.
Bachelor of Computer Engineering. J.W. McConnel Scholarship. GPA of 3.30.

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.

Experience

Vocational

May 2018–Present **Casual Research Assistant**, *Schulich School of Music*, Montréal QC.
Software developer for the *Single Interface for Music Score Searching and Analysis* project at the Distributed Digital Music Archives and Libraries Lab. Specifically working on corrections in optical music recognition by contributing to Verovio and developing the online square-notation music editor Neon.

May–June 2016 **Stagiaire**, *Matrox Electronic Systems Ltd.*, Dorval QC.
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.

Summer 2012, 2013, 2014 **Intern**, *Thorlabs, Inc.*, Newton NJ.
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.

Miscellaneous

2017 **French Courses**, *CSDM - Centre Saint-Louis*, Montréal QC.
Levels 5 and 6 of the *Échelle québécoise des niveaux de compétence en français des personnes immigrantes adultes*.

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++.

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Languages

English	Native	
French	Intermediate	*Niveau 6, Échelle québécoise des niveaux de compétence*

Computer skills

Programming Languages (by proficiency)	C/C++, JavaScript/Typescript, Python, Java, Rust ,VHDL, Haskell, x86_64 and ARM assembly
Familiar With	UNIX-like systems (especially Linux), Scrum-style Agile, FPGAs, Microcontrollers, and Git

Projects

2019 **OR and ICU Haptic Alarms**, *B.Eng. Capstone Project*.

The high amount of noise in hospital environments caused by medical alarms is detrimental to both clinicians and patients. Reducing this noise could greatly improve the well-being of clinicians and medical outcomes for patients. The project sought to do this by developing a haptic display using one vibrotactile actuator capable of conveying the states of three vital signs continuously and in parallel. Supervised by Professor Jeremy Cooperstock.

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. Supervised by Dr. Sophia Gershman.

Presentations

J. Regimbal, "Neon.js after v3: How to move forward with OMR visualization and correction of full manuscripts." Workshop on SIMSSA XVIII.

Z. McLennan and J. Regimbal, "Neon2: Redesigning a web-based MEI neume editor." Workshop on SIMSSA XVII: Infrastructure for Music Discovery.

J. Regimbal, Z. McLennan, G. Vigliensoni, A. Tran, and I. Fujinaga, "Neon2: A verovio-based square-notation editor." Music Encoding Conference.

J. Regimbal and C. Hutnyk, "Neon: Full manuscripts, lyrics and staves." Workshop on SIMSSA XIX.