

## Languages

- English and French (Bilingual), German (basic)

## Education

### Bachelor of Engineering, Honours Electrical Engineering 2015-present

McGill University, Montréal, QC

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|-----------------------------------|------|--------------------------------------|------------|
| • GPA: 3.90                       |      | • Dean's Honour List                 | 2016, 2017 |
| • Brodeur-Drummond Scholarship    | 2017 | • Faculty of Engineering Scholarship | 2017       |
| • Motorola Foundation Scholarship | 2016 | • J. W. McConnell Scholarship        | 2015       |

### Diplôme d'Études Collégiales (DEC), Honours Science 2013-2015

John Abbott College, Sainte-Anne-de-Bellevue, QC

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|--|------|
| • Honour Roll (Top 10% of Honours Science program)                                   |      |
| • Dean's List (Top 35 students in the College)                                       |      |
| • David Burt Memorial Scholarship  | 2015 |
| • Credited Marine Biology Project in Belize in conjunction with University of Belize | 2015 |

### High School Diploma 2013

Westwood Senior High School, Hudson, QC

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|---|------|
| • Honour Roll (Above 80% average)   |      |
| • McGill Science Award (Highest average in Math, Physics and Chemistry)   | 2013 |
| • Governor General Award (Highest average in High School upon graduation) | 2013 |

## Research Experience

### Research Internship in Science and Engineering (DAAD RISE) May-Aug 2017

Technical University of Kaiserslautern, Kaiserslautern, Germany

- Worked on the development of novel microwave antenna designs with Prof. Marco Rahm's research group for metamaterials and terahertz technology under the supervision of Ph.D. student Zinching Dang
- Simulated and optimized antenna designs in CST Microwave Studio, then manufactured designed antennas using photolithography in a clean room
- Constructed an antenna measurement setup and programmed the instrumentation using Labview to automate measurements

### Summer Undergraduate Research in Engineering (SURE) May-Aug 2016

McGill University, Montreal, QC

- Conducted a research project under the supervision of Prof. Andrew Kirk and Dr. Philip J. Roche on a new system for rapidly replicating DNA using lasers and gold nanorods
- Worked independently on tasks and objectives discussed at weekly meetings
- Presented a research poster to members of the university, alumni and guests at a poster presentation

### Research Project Jan-May 2015

McGill University, Montreal, QC

- Research project conducted in McGill chemistry labs under Professor Amy S. Blum and graduate student Julia Del Re on the self-assembly of gold nanoparticles and protein scaffolds
- Report on project received 1<sup>st</sup> place in CIC Montreal Local Section Chemistry Research Project Contest

## Work Experience

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### Hardware Design Intern

May-Aug 2018

Matrox, Dorval, QC

- Performed electrical qualification and troubleshooting of hardware designs for upcoming camera products
- Documented test results and compared with specification to ensure that the designs were working as intended

### School Scheduler

May-Aug 2015

Dash Computer Solutions, Montréal, QC

- Used company software to create and manage class schedules for Montreal high schools
- Optimized schedules based on constraints supplied by school

### Private Tutor

2012-2015

- Worked with grade 7-11 students to improve math and science skills
- Communicated with parents to schedule sessions and to report progress and areas of focus

### John Abbott College Physics Tutor

2014-2015

John Abbott College, Sainte-Anne-de-Bellevue, QC

## Design Team Experience

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### Member of Power Sub-Team

Sept 2015 – May 2018

Autonomous Underwater Vehicle (AUV) Project, McGill Robotics, McGill University

- Design and layout of custom microcontroller PCB, design of a PCB to control and power a grabber arm
- Collaborating with other members/sections to ensure that all the systems/PCBs will be compatible

## Projects

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### Starcraft II Reinforcement Learning AI

Summer 2018 -

- Interfaced the PySC2 Starcraft II learning environment produced by Deepmind with the Keras-RL library
- Currently evaluating the effectiveness of various learning models at completing distinct subtasks of the game

### FPGA Game

Fall 2017

- Programmed an FPGA to allow a user to play a simplified game of black jack against a computer controlled dealer

### Autonomous Robot

Winter 2016

- Constructed a robot using a Lego Mindstorms kit running the Lejos Java library that was capable of autonomously localizing, navigating, picking up and shooting balls
- Documented all stages of development and testing in a group of six students

## Lab Safety Courses

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McGill University, Montreal, QC

- Laser Safety 2016, exp. 2019
- Workplace Hazardous Materials Information System (W.H.M.I.S.) 2016, exp. 2019

## Technical Skills

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### Programming

- Python, Java, MATLAB, C/C++, HTML/CSS, Labview
- Git, Kanban, Slack

## Volunteer Experience

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### Student Life Work

2011-2013

- Going to an underprivileged elementary school in Verdun, spending time with the kids and serving them lunch
- Workshops encouraging younger students to get involved in Student Life

## Activities and Interests

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- Member of McGill Robotics 2015-2018
- Member of Academic Journal Club at John Abbott College 2015
- Member of Squash Club at John Abbott College 2014-2015
- Member of Kayak Club at of John Abbott College 2015
- Member of Westwood Senior/Junior High School Band and Jazz Band 2008-2013
- Member of Student Life at Westwood High School 2012-2013