
Education

- **University of Waterloo, Honours Mechatronics Engineering, BSc** (Class of 2023)
- **École Secondaire Catholique Père-René-de-Galinée** (Class of 2018)
[Cambridge, ON] Fully french education, earning IB certificate. Ranked top 5 for grades.

Publications

- Charging Cavaliers Research Team. "Search for isolated fractionally charged particles (FCP) using CERN's 10 GeV/c proton beam and fixed target."; *Under Review*; Institute of Physics IOP (2018).

Awards and Certificates

- **Top 5 highest-scoring students from PRDG** (2018)
Awarded at graduation.
- 2nd place, **International Autonomous Robot Racing Challenge** (2017)
As the only high school against international universities from Canada, US, India, Thailand...
- **International Baccalaureate Middle Years Programme Certificate and Attestation** (2015)
Received attestation for participating in the 4 year program and the certificate for passing the online examinations (only top quintile of my cohort).
- **CERN's Beamline for Schools** (2017)
We were the first team from the western hemisphere to win this international competition.
- **IB Award for Scientific and Technological Innovation** (2015 & 2017)
Awarded for my contribution in building my school's STEM infrastructure (leading physics team, starting the first-ever robotics & engineering teams, etc.) and inspiring the younger students.
- **University of Ottawa Maker Award** [declined] (2018)
Valued at \$49 000
- **University of Ottawa President's Award** [declined] (2018)
Valued at \$30 000
- Highest Performance Award — having the **highest average in French** course (2018)
- Certificate of **Bilingualism** (2015)
- IB MYP **Best Personal Project** — awarded for my first autonomous robot project (2015)
- Bronze Cross & **Emergency First Aid** Certification (2014)
- Honour Roll (every year)

Current Involvements

- **Charging Cavaliers Particle Physics Team**, Member (since 2016)
Conducted an experiment to prove the existence of a theorized particle. Currently in analysis.
- **Cavalier Robotics Team**, Founder & Leader (since 2016)
- **2nd Physics Team**, Leader (since 2017)
- PRDG **Student Council**, Treasurer (since 2017)
- PRDG **Squash Team**, Cofounder & Leader (since 2016)
- PRDG **Math Team**

Personal Interests

- Squash and Table Tennis
- Languages (English, French, learning Egyptian Arabic)
- Computer Vision and Autonomy

Skills

- **Software:**
 - **Programming/scripting:** Python, C++, C, Haskell
 - **Frontend:** JavaScript, CSS, HTML5
 - **Environments:** Unix, Windows, Linux (CentOS, Debian, etc.)
 - **Other:** Git, Bash, Heroku, Swift for IOS apps, OpenCV
- **Hardware:**
 - **Electronics:** Eagle CAD, PCB etching, soldering, AVR & PIC programming
 - **Mechanical:** 3d printing, CNC machining, AutoCAD

References

*available upon request