

Ali Najmaldin

BIOENGINEER · BIOMEDICAL, DIAGNOSTICS AND HIGH THROUGHPUT SCREENING ENGINEERING

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I am an aspiring bioengineer who is highly interested in using software development to model many biological phenomena by means of mathematical methods. My preferred domains include tumour growth and biomedical devices development. I am particularly interested in real-world applications of these discoveries and the impact they can have on people, which lead me to be fascinated by the world of surgery. I will develop these skills in order to change the world and transform how the medical field is viewed as a whole. When I am not working, I like to fly planes, especially while enjoying the horizons with friends and family.

Education

Student at McGill University

UNDERGRADUATE IN BIOENGINEERING

- I am working towards a bachelor's degree in bioengineering at McGill University

Quebec, Canada

Aug 2017 - Apr. 2021

Royal Air-Prestige Pilot License

PRIVATE AND COMMERCIAL PILOT LICENSE

- I am working towards my private and commercial pilot license.
- I will be looking to get an IFR rating, night rating, VFROT rating, sea plane rating

Quebec, Canada

Jun 2018 - Ongoing

John Abbott College

D.E.C. IN HEALTH SCIENCE

- Received a college diploma in the health science field at John Abbott College.
- Awarded Honour Roll all four semesters.

Quebec, Canada

Aug. 2015 - May 2017

Skydiving license

UNDERGRADUATE IN BIOENGINEERING

- I am working towards a bachelor's degree in bioengineering at McGill University

Quebec, Canada

Aug 2017 - Apr. 2021

Diploma of College Studies (Gerald Godin)***inconsistency with 4 semester award **check date

D.E.C. IN HEALTH SCIENCES

- Received a college diploma in the health science field at John Abbott College.

Quebec, Canada

Aug. 2015 - May 2017

Diploma of High School Studies (École Secondaire Des Sources)

D.E.S. IN HEALTH SCIENCES

- Received a high school diploma in the health field at École Secondaire Des Sources.

Quebec, Canada

Sept. 2010 - June 2015

Skills

Programming	Python, C/C++, Matlab, LaTeX, R, JAVA, GitHub, Bash
Certificates	Hélicoptère Pilot, Private Pilot License SimuLink Matlab, MSERT First-Aid, WHMIS 2015
Software	2D/3D CAD/CAM software suite (including AutoCAD), MATLAB, Maple, MS Office Suite, Mathematica, GitHub
Languages	English, French, Arabic

Internship Experience

McGill University

CO-AUTHOR AND RESEARCH ASSISTANT

- Helped in the creation of a biomedical sensor for the detection of Anti-epileptic drugs that are hard to monitor
- Assisted the PhD candidate in writing a review article summarizing the many methods for therapeutic drug monitoring of AEDs.
- Conducted many experiments on AEDs in the lab to determine their performance and their effects on the human body.
- Performed experiments on AEDs to determine the best way to do TDM for various applications

Quebec, Canada

May 2019 - Dec 2019

Polytechnique Montreal

CO-AUTHOR AND RESEARCH ASSISTANT

Quebec, Canada

May 2018 - Dec 2018

- Helped in the creation of a biomedical sensor for the detection of Anti-epileptic drugs that are hard to monitor
- Assisted the PhD candidate in writing a review article summarizing the many methods for therapeutic drug monitoring of AEDs.
- Conducted many experiments on AEDs in the lab to determine their performance and their effects on the human body.
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Publications

Anti-Epileptic Drug Detection Systems – A Review

CO-AUTHOR

Quebec, Canada

May 2018

- The paper is under final review and has been accepted by Biosensors and Bioelectronics

Clinal variation and phenology in two congeners of *Phragmites australis* (Cav.) Trin. Ex Steud in Northeastern North America: Implications for Current Management and Future Climate Change

RESEARCH ASSISTANT AND CONTRIBUTOR

Quebec, Canada

Aug. 2016 - May 2017

- Performed various experiments in a biological laboratory and collected various data to study the clinal variation and phenology in two congeners of *Phragmites australis*
- Learned various techniques such as how to work in a sterile environment laboratory, how to dissect following protocol, key features to observe on a microscope, etc.
- https://www.phragmites.crad.ulaval.ca/files/phragmites/Final_Thesis_Lovat.pdf

Experience

Teaching Assistant (TA)

MCGILL TEACHING ASSISTANT FOR MATH 264 AND PRIVATE TUTOR

Quebec, Canada

Aug. 2018 - Ongoing

- I have been selected to be the TA for MATH 264
- I am a private tutor with McGill Tutoring services for classes that I have previously taken.

McGill Teaching Assistant***

NOTE TAKER

Quebec, Canada

May. 2018 - Ongoing

- mcgill tutor.

McGill Tutor***

NOTE TAKER

Quebec, Canada

May. 2018 - Ongoing

- mcgill tutor.

McGill Office for Students with Disabilities

NOTE TAKER

Quebec, Canada

Jan. 2018 - Ongoing

- Takes legible and detailed notes for my classes and uploaded them to secure the academic success of students with disabilities.

Piccadilly Canada

GENERAL MANAGER AND SALES ASSOCIATE

Quebec, Canada

Aug. 2013 - Ongoing

- Places orders on items that are needed and Verifies that all stock object are marked and correctly priced
- Control and maintain inventory levels to maximize operational efficiency.
- Sales associate at the cash and customer service at the phone to answer any questions related to business inquiries.

Volunteering

Doctor Shadowing

EMERGENCY ROOM AND GENERAL SURGEON SHADOWING

Quebec, Canada

Dec 2018 - Jan 2019

- Assisted the supervising physician in various tasks and took notes.
- Allowed to spectate live ongoing surgeries and how trauma is to be treated in the ER.
- Experienced the daily lives of doctors

Héma-Québec

COMPLETE VARIOUS TASKS FOR A SMOOTH BLOOD DONATION

Quebec, Canada

Jan 2018 - Feb 2018

- Welcome donors and offer information.
- Communicate with blood donors so that they remain calm and distribute food.

Biology Learning Center

A SUPERVISOR IN THE BIOLOGY LEARNING CENTER AT JOHN ABBOTT COLLEGE

- Supervised activities at the learning center and took the names of all students that borrowed material.
- Ensured that no students left with any material belonging to the biology department.
- managed computers to achieve smooth operation for students.
- Closed the department at the end of the day.

Iraqi community Center

A VOLUNTEER FUNDRAISER TO RAISE MONEY FOR THE IRAQI COMMUNITY CENTER

- Helped in securing funds for people in need by participating in various events to promote awareness.
- Visited selected donees to deliver funds.

Muslim Youth of Montreal

COMMUNITY SERVER AT THE MUSLIM YOUTH OF MONTREAL

- Managed and prepared multiple events taking place at the community centre and cleaned up after the event took place.
- Coordinated food distribution for many youth.
- Organized information sessions to raise awareness.

McGill Mac Campus

RESEARCH ASSISTANT AND CONTRIBUTOR

- Performed various experiments in a biological laboratory and collected various data to study the clinal variation and phenology in two congeners of *Phragmites australis*
- Learned various techniques such as how to work in a sterile environment laboratory, how to dissect following protocol, key features to observe on a microscope, etc.
- https://www.phragmites.crad.ulaval.ca/files/phragmites/Final_Thesis_Lovat.pdf

Extracurricular Activity

Vice President of External Affairs at McGill Student's Flying Club (MSFC)

VP EXTERNAL

- Was elected to be part of the MSFC executive team.
- Participated in various activities with the MSFC; went on several day trips: skydiving, pilot for a day.

Mars Rover Arm Software Developer

MCGILL ROBOTICS

- Developed simulation plugin in C++ in Gazebo for the Mars Rover Arm Systems in ROS (Robot Operating System).
- Developed a six-axis inverse kinematics control in MoveIt for the rover arm.
- Worked with a team of over 60 students on GitHub.

Engineering Investing Group **remove?

FUND TEAM MEMBER

- Perform fundamental and technical analysis on financial asset classes.
- Receive mentorship from industry professionals and academics.
- Compete in Canadian equity and derivative markets in national and international trading simulations.
- Assist info sessions and workshops on trading strategies and product structuring.

McGill Formula Electric

AERODYNAMICS TEAM MEMBER

- Learned how to use various CAD software to design objects and manufacture them.
- Learned how to do 3D printing and welding to design and assemble a car from the ground up.
- Refined my communication abilities when coordinating tasks in a large team.

Royal Air Cadet

LEADING AIR CADET AT THE 803 NORTH SHORE SABRE SQUADRON

- Went to ground school to learn about planes and how to fly them.
- Learned about leadership and chain of command.
- Developed public speaking skills.
- Refined my organizational skills.

Honors & Awards

NSERC-USRA

POLYTECHNIQUE MONTREAL

Awarded a scholarship of \$6000 to stimulate my integration within the ReSMiQ laboratories.

ReSMiQ intership scholarship

POLYTECHNIQUE MONTREAL

Awarded a scholarship of \$3500 to stimulate my integration within the ReSMiQ laboratories.

Quebec, Canada

Jan. 2017 - May 2017

Quebec, Canada

Dec. 2016 - Feb. 2017

Quebec, Canada

June 2016 - Nov. 2016

Quebec, Canada

Aug. 2016 - May 2017

Quebec, Canada

Aug. 2017 - Ongoing

Quebec, Canada

May 2018 - Ongoing

Quebec, Canada

Jan. 2018 - Ongoing

Quebec, Canada

Aug. 2017 - Ongoing

Quebec, Canada

Aug. 2014 - Feb. 2015

Quebec, Canada

May 2018 - Aug. 2018

Quebec, Canada

May 2018 - Aug. 2018

John Abbott College Honour Roll for all four semesters

JOHN ABBOTT COLLEGE

Quebec, Canada

Aug. 2015 - May. 2017

Completed my semesters studies with an overall average among the top ten percent of all students registered in my program.