

EDUCATION

McGill University – Faculty of Engineering, Montreal, Canada

2021 – Present

Bachelor of Engineering, Major in Electrical Engineering, Minor in Mathematics, Minor in Computer Science

CGPA: 3.69/4.00

Awards:

2023-2024 Academic Year

- Dean's Honour List – awarded for being among the top 10% of the faculty
- Motorola Foundation Scholarship in ECE – awarded for high academic standing, interest in wireless comms, leadership & teamwork qualities
- Faculty of Engineering Scholarship – awarded for high academic standing

EXPERIENCE

Engineering Student: RF Electronics and Antennas - MDA Space, Montreal, Canada

May 2025 - Present

- Conducted 200+ simulations for inter-antenna isolation and power flux density on the satellite
- Ran numerous sensitivity analyses to validate inter-antenna isolation results directly for the client and other departments
- Learned state-of-the-art RF and Antenna CAD software such as TiceTools and HFSS

Undergraduate Research Assistant - iSMART Lab, Montreal, Canada

June 2024 - Present

- Contributed to a research project for applying ML in healthcare. Associated with McGill University and the MILA-Quebec AI Institute
- Helped develop an experiment aimed for 100 participants; recorded 30+ hours of data from experiment testing and troubleshooting
- Proficiency in Biopac's AcqKnowledge 5.0 software and in operating a variety of Biopac devices: NIBP100D, MP160, AMI100D, ...

Undergraduate Teaching Assistant – McGill University, Montreal, Canada

May 2024

- Voluntary teaching assistant for an introductory linear algebra course with over one hundred students enrolled
- Held office hours twice a week from 1 pm - 4 pm, enriched students' understanding as opposed to giving them details to memorize
- Joined the course instructor in hosting extra help sessions before all midterm and final exams, lasting 4 hours minimum

Projects

Image Classification with Neural Nets

March - April 2025

- Classification task on greyscale images: Identify the number from 1 to 9 among characters from unknown languages
- Try various neural net architectures; contrasted the effectiveness of convolutional vs. ordinary neural nets
- Employed standard ML techniques: validation set, hyperparameter tuning, tried architectures that performed well on similar tasks

My Portfolio Website

June - July 2024

- First project in front-end design; self-taught and extensively used HTML, CSS and Javascript
- Four main webpages at the core of the website, each with a distinct purpose: 'Home', 'About', 'Experience', 'Projects'
- Project portfolio divided into multiple categories, facilitating expansions and making it easily navigable

Workout Log Program

April - May 2024

- Interactive program written in C that allows you to create, store and edit notes about your workouts
- The program has a command-line user-interface theme, interacts with the computer file system and avoids sophisticated libraries
- There are 6 commands: 'add', 'remove', 'update', 'list', 'save' and 'exit'. Each are very robust in face of user input

Research Paper for Coursework at McGill: Radiation Shielding Materials for Moon Missions

October - December 2023

- Compared aluminum, liquid hydrogen and polyethylene for radiation shielding during 30-day moon mission at solar maximum
- Studied the radiation environment of the solar system, the solar cycle and radiation dosimetry. The paper received an A grade
- The solutions, criteria, and final recommendations were chosen based on factors supported by academic literature

SKILLS AND INTERESTS

Coding Languages: C, Java, Python, VHDL, HTML, CSS, Javascript, Scripting with Bash and Windows Batch files. Experience with MATLAB

Language Skills: Fluent English, Very Advanced French

Interests: Fitness and Strength Training, Professional Armwrestling, Sci-Fi, Physics, Mathematics and Engineering (Differential Equations, Signal Processing, Control Systems, Electromagnetics, Wireless Comms, AI and Machine Learning, ...)

Links

My Portfolio Website: <https://davwyr.com/portfolio> **GitHub:** <https://github.com/awyrst> **iSMART Lab:** <https://ismart.ece.mcgill.ca/>

MDA Space: <https://mda.space/> **LinkedIn:** <https://www.linkedin.com/in/alexander-wyrstiuk-5b5256214>