

WALID AISSA

☎ (438) 527-5279 ✉ walid.aissa@mail.mcgill.ca 🔗 [linkedin.com/in/walid-aissa-42b26224a](https://www.linkedin.com/in/walid-aissa-42b26224a) 📄 github.com/WalidAissa 📁 walids-portfolio.netlify.app/

Education

McGill University

Sep 2021 – Current

Bachelor of Engineering (B.Eng.) in Computer Engineering, Minor in Applied AI, Class of 2026

Montreal, QC

CGPA: 3.9 — Dean's Honour List (Ranked Top 10 %) — Motorola Foundation Scholarship

Computer Engineering Student Representative — Trustee of the Engineering Undergraduate Society

Work Experience

McGill Robotics

Sep 2021 – Current

Software Division Senior

Montreal, QC

- Collaborated for **3+ years** in a team of **100+ students** in a **Scrum environment** contributing to the development of a competitive **autonomous space rover** — participating in bi-weekly **sprint planning**, and **retrospective meetings**
- Developed the **UI backend** using **ROS**, **PyQt5**, and **OpenCV**, allowing control of the arm, wheels, and cameras remotely; later migrated the UI to an **AngularJS / Node.js** web application, **decreasing latency by 45 %**
- Implemented various **path tracking and reverse kinematics techniques** to ensure the rover's safety (e.g: GJK algorithm), and improved the **C++** communications firmware, **lowering the number of collisions by 30 %**

McGill Artificial Intelligence Society

Jan 2023 – May 2023

MAIS 202 Member

Montreal, QC

- Completed an intensive ten-week program focused on the fundamentals of **machine learning**, covering both theoretical concepts and practical applications in a **hands-on learning environment**
- Developed a **Clothing Item Classifier** utilizing the **Python** libraries **pandas**, **NumPy**, and **scikit-learn** to construct a **CNN with 92% accuracy**; selected as the **best project at the McGill AI Project Fair** among 15 others
- Applied advanced machine learning techniques, including **regression analysis**, **classification algorithms**, **neural networks**, and **transformers**, to solve real-world problems and enhance predictive modeling capabilities

Penrose Partners

May 2024 – Current

Associate Consultant

Remote

- Conducted **market research and analysis** for **high-profile clients** such as the **Government of Bermuda**, focusing on blockchain technology and decentralized finance (DeFi) sectors
- Collaborated with **3iQ**, a leading Canadian asset management firm, to develop **marketing and outreach** plans for their **blockchain financial products**, driving a **30% increase in institutional inquiries** and raising **AUM by \$15M**
- Supported **Nayms**, an innovative insurance platform on the blockchain, in refining their **go-to-market strategy**, resulting in a **40% improvement in user acquisition** and projected **\$50M in insured assets** by Q4 2024

Projects

Azza | *Website* | *Source Code*

PyTorch | **React** | **API**

- * Developed a **Q/A conversational agent** leveraging the **LLM BERT** for **natural language processing** and **question answering**, fine-tuned on the **SQuAD 2.0 Dataset** to achieve **human-level performance**
- * Implemented a **multi-step pipeline** for key-phrase extraction that included article retrieval using the **Wikipedia API**, and integration with the **PyTorch Transformers** library for tokenization and answer extraction; leading to an accuracy of **85%** in contextual responses
- * Deployed the application on **Hugging Face**, providing a **React demo environment** **100+ students interacted with**

CourseChamp | *Source Code*

SpringBoot | **Vue.js** | **PostgreSQL**

- * Programmed a scalable and adaptable course management software system, potentially benefiting **1,200 students**
- * Utilized **PostgreSQL** for data storage, **Spring Boot** for a **RESTful API** backend and **Vue.js** for the user interface
- * Conducted extensive **unit and integration testing** using **Gradle** and **Jacoco**, achieving over **90% test coverage** for controller and service layers to ensure software reliability and quality

Technical Skills

Programming Languages: Python, Java, SQL, HTML5, CSS, JavaScript, C/C++, C#, VHDL, Linux/Unit Bash

Libraries/Frameworks/Tools: ReactJS, AngularJS, Vue.js, ThreeJS — PostgreSQL, Spring Boot, NodeJS, AWS, Azure, MongoDB, PowerBI, Postman, Jacoco, Git — scikit-learn, pandas, PyTorch — Matlab, Simulink, Quartus, Blender, Unity

Languages: French (C2), English (C2), Arabic (C1), Portuguese (C1), Spanish (B1)