

Abdellah Ghassel

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Education

Queen's University

Master of Applied Science in Artificial Intelligence, Specialization in Natural Language Processing

Kingston, Canada

Sept. 2023 - April 2025

- Vector Institute Scholarship Recipient, valued at **\$17,500**

Queen's University

Bachelor of Applied Science in Computer Engineering (4.0/4.3 cGPA)

Kingston, Canada

Sept. 2020 - April 2024

- **Schulich Leader**: Canada's most prestigious scholarship for leadership and academic excellence, valued at **\$100,000**

Work Experience

RBC Amplify

Data Engineer

Toronto, Canada

May 2023 - Aug. 2023

- Created a patent-pending financial gamification mobile application, securing **\$20,000** "Industry Disruptor" prize
- Deployed a user-focused app that strategically maps financial goals, and learning paths
- Integrated actionable tasks and streamlined goal automation and tracking using **Swift**, **PostgreSQL**, and **Node.js**
- Finetuned a large language model that harnesses financial data to recommend goals using **Plaid**, **Langchain**, and **FastAPI**

Conflict Analytics Lab – Queen's Law School

Full-Stack Developer

Kingston, ON

Jan. 2023 - Present

- Developed AI-driven solutions to increase accessibility of legal services, using **OpenAI**, **Elasticsearch**, **React**, and **Azure**

Ubineer

NLP Developer

Remote

July 2022 - Sept. 2022

- Extracted and parsed data from 15 SEC filings using natural language processing methods such as **NLTK** and **BeautifulSoup4**
- Developed data processing functions to refine and chunk the data, reducing tasks from several hours to less than 10 minutes
- Built a data pipeline using workflows, and **GCP** cloud functions to extract financial information to influence stakeholder investments

Bank of Canada

Systems Developer

Ottawa, Canada

May 2022 - Aug. 2022

- Automated **CyberArk**, **SailPoint** and **ServiceNow** data to identify vulnerable accounts, reducing a week-long task to an hour
- Reported on 100,000 accounts across 12 use-cases using **PowerBI**, **SQL** and **PowerApps**

Extracurricular Activities

QMIND: Queen's Machine Learning and AI Hub

Quantum Machine Learning Engineer

Kingston, Canada

Sept. 2021 - Present

- Engineered a **first-of-its-kind** quantum convolutional neural network for image classification using **Qiskit** and **PyTorch**
- Achieved a **98% accuracy** and explored amplitude encoding, hybrid QCNN architectures and resilient quantum hardware
- Presented and published a research paper at Canada's top undergraduate conference on Artificial Intelligence

Projects

iYashi | Personal

Project | July 2022

- Designed and 3D-printed motorized rehabilitation device that aids stroke victims to regain motor functionality
- Programmed a servo motor to adaptively apply resistance for optimal training using a PID loop algorithm on **Arduino**
- Serialized the data through protocol buffers to allow for secure data transfer using **ProtoBuf** and **Solidity** for smart contracts

ReUnite | Blockchain Winner

TOHacks | June 2022

- Built a website to verify thousands of refugee data and aid them in finding families, cater resources, and new homes
- Implemented **Azure Face API** to authenticate refugees and personal information to sensitive databases
- Applied smart contracts via **Solidity** and **Ethereum** to be accommodate sponsors and refugees

Clarity | Wearable Winner

MakeUoFT | Feb. 2022

- Designed interactive glasses using **Google Cloud Vision** to detect a person's emotions in real-time through a modular camera
- Facilitated social interactions to assist people with developmental disorders to read social cues, using **Raspberry Pi OS**

ReCoin | 3rd Place

UoFT Hacks IX | Jan. 2022

- Launched an app that utilizes an image-classification neural network to identify waste captured by the user's camera
- Utilized **Pytorch** and **ResNet** to achieve a **94% accuracy** on plastic, paper and compostable items
- Partnered with local businesses to alert users of drop sites to exchange recyclable products for cashback

Technical Skills

Programming Languages

Python, Java, JavaScript, C/C++, SQL, HTML, Verilog HDL, MATLAB

Libraries | Frameworks

NLTK, Tensorflow, PyTorch, Pandas, Scikit-Learn | React, Node.js, Express, FastAPI

Certifications

Stanford University Machine Learning Specialization, CyberArk Privileged Access Management