Abdellah Ghassel

+1 (613) 809-8436 | abdellah.ghassel@queensu.ca | aghassel.github.io | aghassel | abdellahghassel

Education

Queen's University — *Kingston, Canada*

Bachelor's of Applied Science in Computer Engineering (Dean's Scholar) — *Sept. 2020 - April. 2024*

- **Schulich Leader**: Awarded Canada's most prestigious scholarship for entrepreneurial leadership skills and academic excellence, valued at **$100,000**
- **Relevant Courses**: Data Structures & Algorithms (**C/C++**), Object-Oriented Programming (**Java**), Data Analytics (**Python**), Operating Systems (**Linux**)

Work Experience

Ubineer — *Remote - Toronto, Canada*

NLP Developer — *July 2022 - Sept. 2022*

- Extracted and algorithmically-parsed data from 15 SEC fillings using natural language processing methods such as **NLTK** and **BeautifulSoup4**
- Developed 12 pre-processing and post-processing functions to refine and chunk the data
- Built the data pipeline using **APIs**, workflows, and **GCP** cloud functions to extract recent financial information for stakeholders

Bank of Canada — *Ottawa, Canada*

Systems Development Engineer — *May 2022 - Aug. 2022*

- Spearheaded the integration of **CyberArk DNA**, **SailPoint** and **ServiceNow** context data to report on 12 Used Cases to identify vulnerable accounts
- Implemented **PowerBI**, **MySQL** and Microsoft **PowerApps** to automate data processing and the application of custom functions to 100,000 accounts
- Incorporated the **Agile** framework using **JIRA** and Confluence to monitor the project's progress and document major changes

Queen's University — *Kingston, Canada*

Teaching Assistant: APSC221 Engineering Economics — *Jan. 2022 - Aug. 2022*

- Marked assignments/exams and proctored midterms
- Answered course-related questions in discussion forums on **D2L**

Extracurricular Activities

QMIND: Queen's Machine Learning and AI Hub — *Kingston, Canada*

Innovation Design Team — *Sept. 2021 - Present*

- Created a climate prediction model by deploying a convolutional neural network using **Python**, **Scikit-Learn** and **Pandas**
- Customized a user interface to see graphs/predictions using time-series data modelling and regression analysis
- Presented and published a research paper at CUCAI (Canadian Undergraduate Conference on Artificial Intelligence)

Google's Student Developer Club — *Kingston, Canada*

Executive Technical Team — *Sept. 2021 - Present*

- Launched the GDSC Website for the Queen's Chapter using **HTML**, **JavaScript** and **CSS**
- Tasked with the development and maintenance of the Qlicker app using **Node.js**

Projects

iYashi | *Independent* — *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 an **Arduino**
- Serialized the data through protocol buffers to allow for secure data transfer using **ProtoBuf** and **Solidity** for smart contracts

ReUnite | *Blockchain Prize* — *TOHacks* | *June 2022*

- Deployed software to verify refugee data in camps and aided them to find their families, cater resources, and new homes
- Implemented **Azure Face API** to authenticate refugee faces and personal information to sensitive databases
- Applied smart contracts via **Solidity** and **Ethereum** to be easy-to-understandable and translatable for sponsors and refugees

Clarity | *Best Wearable Gadget* — *MakeUofT* | *Feb. 2022*

- Designed interactive smart glasses using **Google Cloud Vision's API** to detect the emotion of a person in real-time through a modular camera
- Facilitated social interactions to assist people with developmental disorders to read four social cues
- Used **Raspberry Pi OS**, **SolidWorks** and **Python** to include capabilities such as the weather, reminders and schedules

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 the validation and testing sets after 8 epochs of training
- Alerts users of drop sites for their recyclable products at partnered local businesses and to exchange for credit

Technical Skills

Programming Languages	Python, C/C++, Java, HTML, CSS, JavaScript, VHDL, Assembly, MATLAB
Python Libraries | Frameworks	NLTK, Scikit-Learn, Matplotlib, NumPy, Pandas, PyTorch, Tensorflow
Infrastructure Tools	AWS, Google Cloud, Git, Linux