

# Aymen Ouali

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## Skills

**Programming Languages:** Java, Python, JavaScript, C#, Bash, C

**Web & Database:** HTML, CSS, Firebase Firestore, SQL Server, AWS, DigitalOcean, Kubernetes, MongoDB

**Frameworks:** React, PyTorch, React Native, Svelte, Flask, .NET Framework, .NET Core, TailwindCSS, Bootstrap, ExpressJS

**IDEs:** Visual Studio Code, Visual Studio Community, Eclipse

**Other skills:** Git, GitHub, Bitbucket, Bitbucket Pipelines, Docker, Firebase, Unity, Postman

**Languages:** French (native), English (professional fluency)

## Work experiences

**Software Development Intern (Full-Stack) – Intelligence Industrielle**

**May 2022 – August 2022**

- Deployed the company's web application on **AWS ECS** using **Fargate** and **EC2 Load balancers**, allowing the company to go from managing one server per client to a single easy-to-use infrastructure.
- Researched, analyzed, and evaluated multiple software engineering solutions (**AWS, GCP, DigitalOcean**) to deploy Apache Airflow on a cluster.
- Deployed Apache Airflow on a **DigitalOcean Kubernetes** cluster with a **Load Balancer** using **Kubernetes** and **Helm**, which **completely fixed** the crashing issues for tasks.
- Thoroughly documented a **Bitbucket** repository and created a **CI/CD** pipeline using **Bitbucket Pipelines**.
- Collaborated and communicated with the Business Intelligence team using MS Teams and by scheduling meetings to fix a crashing Apache Airflow deployment.
- Designed and implemented multiple front-end features in **React**.
- Used **ExpressJS**, **MongoDB** and **NodeJS** to implement multiple back-end features of the application.
- Experimented with **AWS S3** to store logs and files and **AWS Lambda** for **Playwright** tests.
- Used: **React, JavaScript, NodeJS, ExpressJS, MongoDB, DigitalOcean, Kubernetes, Helm, AWS, Bitbucket**

## Engineering Projects

**MAIS Hacks 2022 (Deep Learning) – Hackathon**

**October 2022**

- Worked in a team of 4 to develop a **deep learning model** that notifies the user if their sitting posture is incorrect.
- Used **PyTorch** to design, train and test the **neural network**.
- Used **Teachable Machine** to create the images used for the **custom dataset**.
- Used: **PyTorch, Neural Networks, Numpy, Mediapipe, OpenCV, Teachable Machine**

**Code.Jam (XI) (Full-Stack) - Hackathon - [Website](#) – [GitHub Repository](#)**

**February 2022**

- Worked in a team of 2 to develop a ReactJS website called StoryHolic to stories structured like a tree.
- Used **Firebase** for **authentication** and **Firestore** for storing the stories in a tree structure.
- Used: **ReactJS, JavaScript, Firebase, Firestore**

**NDL-k: Arcade (Full-Stack) - Personal Project**

**April 2021 – April 2022**

- Used BeautifulSoup4 in **Python** to perform **web scraping** and gather data from dbkpop.com, stored in JSON format.
- Built a **Content Based Recommendation system** using **Pandas** and **Cosine Similarity**.
- Built a **REST API** in **Python** using **Flask** to return questions.
- Developed a **React Native** application using **Expo** that uses the data from the **REST API**.
- Used **Firebase authentication** and **Firebase Firestore** to store user-related data.
- Used: **Python, Flask, React Native, React Hooks, Asynchronous Programming, Firebase, Firestore, Pandas, Cosine Similarity**

**SacHacks 2021 (Front-End) – Hackathon – [GitHub Repository](#)**

**February 2021**

- In a team of 4, built a typing speed website using **Flask, HTML, CSS, JavaScript** and deployed on **PythonAnywhere**.
- Used: **Python, Flask, JavaScript, HTML, CSS, PythonAnywhere**

## Education

**Bachelor of Engineering (B. Eng.), Co-op in Software Engineering – CGPA: 3.8/4.0**

**September 2021 – April 2025**

*McGill University, Montreal, QC*

## Relevant Coursework

**Now:** Algorithms and Data Structures, Introduction to Software Engineering, Accelerated Introduction to Machine Learning

**Past:** Communication in Engineering, Model-Based Programming, Introduction to Computer Science