ABDERRAHMANE GROU

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Bilingual: English, French

Summary

Graduate software engineer with relevant experience in data engineering, cloud and embedded systems development. Autonomous, curious and a fast learner, I'm dedicated to continuous improvement and project success.

Experience

Full-Stack Developer (Intern)   **Montreal, QC**
Mitacs   *Sep 2023 – Dec 2023*
- Developed a complete researcher-project matching platform hosted on **Azure**, using **Node.js** and **Angular** framework.
- Created an **SQL database** with **80,000+ authors** by aggregating data from academic **API**s and **web scraping**.
- Implemented a data visualisation for authors distibutions using **PowerBI**.
- Utilized **Python** for data cleaning, preprocessing, and applied **NLP** techniques to optimize researcher-project matching.

Embedded Systems Developer   **Blainville, QC**
Autolog   *Aug 2022 - Aug 2023*
- Implemented **Real-Time** trimming optimisation features using **C++** and TDD.
- Achieved 100% code coverage through rigorous testing using **CPPUnitTest**.
- Developed a management center using **UWP** and **.NET core** to enhance productivity for 20 employees and improve simulation process.

Embedded Systems Developer (Intern)   **Blainville, QC**
Autolog   *May 2022 - Aug 2022*
- Enhanced the trimmer process by implementing and rigorously validating detection algorithms for 5 new board defect types using **C++**.
- Tested the implemented features using **CPPUnitTest**.

Projects

Stock Portfolio Tracker
- Developed a full-stack stock portfolio tracking platform using **ASP.NET Core**, **Angular**, and **SQL Server**, providing stock data and user-friendly interfaces.
- Optimized database performance with efficient use of **Entity Framework**.

Crazyflie Drone Exploration
- Led a six-member team to develop an embedded drone navigation system, operating in both physical and simulated environments using **C++** and **low level C**.
- Designed a complete **Angular** web application for remote drone control and map visualization with a **Flask Server** integration.

Real-Time Multiplayer Scrabble Plateform
- Led a team of 5 to create a real-time multiplayer game using **Angular, Node.js, Socket.IO** and **MongoDB**.
- Achieved 100% code coverage through rigorous testing using **Jasmine, Mocha** ans **Sinon.JS**.

Education

Polytechnique Montreal   **Montreal, QC**
BEng, Computer Engineering   *Jan 2020 - May 2024*
- **Selected Coursework:** OOP, AI: Methods And Algorithms, Data Mining, Data Visualization, Algorithms Analysis, Recommendation Systems
- **Government of Quebec Scholarship for Academic Excellence**

Relevent Skills

Programming: C/C++, ASP.NET, C#, Python, JS/TS, Java, SQL, MongoDB. **Web Frameworks:** Angular, ReactJS, HTML/CSS.

DevOps: Docker, AWS, Azure, Git, Atlassian. **Data Science:** TensorFlow, Scikit-learn, Keras, Pandas.

Extracurricular

- **+2 years** as a pharmacy floor clerk, providing training to +5 new team members.
- **Laboratory Technician** providing customer service, prescription processing and insurance claim resolution since Sep 2023.