Souleiman Ayoub

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WORK EXPERIENCE

Ask Locala   **Montreal, Canada**
Data Engineer   *September 2024 - Present*
- Designed, developed, and deployed Apache **Airflow** DAGs for streaming / CDC data pipelines, utilizing **Databricks** Unity Catalog for efficient table ingestion and processing
- Proactively proposed and implemented improvements to the data architecture, enhancing scalability and efficiency of data workflows
- Took ownership of end-to-end data product development, ensuring high-quality deliverables while utilizing **Terraform** for managing external locations

Nasdaq - ExcelGens Inc.   **Montreal, Canada**
Data Engineer (Contract)   *January 2024 – September 2024*
- Spearheaded ETL and CDC solution development, optimizing data workflows with technologies like **Databricks** on **AWS**
- Refactored team code for production readiness, specializing in big data processing using **Delta Lake** and **PostgreSQL**
- Collaborated cross-functionally to ensure efficient project delivery and adherence to industry standards

Deloitte – Omnia   **Montreal, Canada**
Data Engineering Consultant   *January 2022 – December 2023*
During my journey at Deloitte, I've mainly contributed to three projects
- Developed successful logic apps, function apps and pipelines on **Azure** that allowed a government entity to migrate and modernize their infrastructure
- Delivered successfully on the frontend, backend and devops side of a webapp that showcases the datasets owned by a banking institution
- Led the development team for a platform that leverages **blockchain** technology to allow clients to profit from their underutilized datasets

Desjardins Group   **Montreal, Canada**
Data Science   *May 2021 – August 2021*
- Designed a Flask microservice which has an **unsupervised model** that can consolidate the financial profile of multiple users to offer recommendation
- Presented our team's work multiple times to Desjardins partners and Guy Cornier.
- Explored multiple approaches to address the need for data, including creating proprietary datasets, utilizing public datasets and exploring APIs

Mitacs – Eduplan Solutions   **Montreal, Canada**
Data Science   *May 2020 – August 2020*
- Created multiple ML models in **Python** whose purpose was to recommend means and goals to students then compare them with each other thanks to performance metrics
- Communicated with the client to align on the project vision, manage expectations, and explain the different possibilities available with the available resources
- Extracted information from the database by using **SQL**

EDUCATION

Polytechnique Montreal   **Montreal, Canada**
Bachelor (B. Sc.) in Software Engineering

CERTIFICATIONS

- Recipient of the **AWS** Certified Machine Learning - Specialty certification
- Recipient of the **AWS** Cloud Practitioner certification

Awards

- Mention of Excellence for outstanding performance at Polytechnique Montreal
- Recipient of the Admission Excellence Scholarship at Polytechnique Montreal

- 2nd place in a Polytechnique pitch competition
- 2nd place in a math competition at College Bois-de-Boulogne (COMC)

SKILLS

SOFTWARE DEVELOPMENT

Main Programming Languages: Python, TypeScript, Java, JavaScript, HTML/CSS
Other Programming Languages: C++, C, Bash, Solidity, Kotlin, Rust

Data Engineering Technologies: Databricks, Pyspark / Apache Spark, Azure (Logic Apps, Function Apps, Synapse, Storage Accounts, APIM, Service Bus), AWS (Lambda, S3, ECS, EC2, Dynamodb, OpenSearch, Snowflake), Pandas, Docker, Kubernetes, SQL, Postman, Trino, Firebase
Other Technologies : React, React-Native, Angular, Redux, Django, Flask, Git, Gitlab, Github, Node, p5.js, Bootstrap, Ionic, Tensorflow, Keras
Databases: PostgreSQL, SQLite, MongoDB, DynamoDB, Firebase

Languages: French, English

PROJECTS

MEV bot
- Wrote and deployed a **liquidation bot** in NodeJS which interacts with smart contracts on the **Ethereum** mainnet

Exo Computer Vision Project
- Developed a machine learning algorithm as a team to estimate the approximate occupancy rate of parking lots using recordings from multiple cameras per lot
- Used various technologies such as PyTorch, TensorFlow and a PostgreSQL Database

Chess AI
- Developed a Python chess engine featuring a **machine learning bot, built from scratch**, for playing against and an Alpha-Beta pruning bot.
- Employed several design patterns including Memento, Strategy, and Singleton in my implementation

Cross-platform multiplayer Gartic Phone
- Developed a version of Gartic phone usable on Android and PC where a player could play against a human or virtual opponent
- Built a NodeJS backend and used WebSocket alongside GraphQL to enable a multiplayer mode

HACKATHONS

Dev: Google Tech Challenge / HackQC (3 days) / Hackathon BDC
AI: McGill Physics Hackathon (on GitHub - 4th place) / AI Hackathon at UdeM (6th place) / ConcordAI Artificial Intelligence Hackathon / LHGames
Security: 2 Capture the Flag (security hackathons)