

Sayah Mahfoud Abd el Ali

Oran, Algeria | [LinkedIn](#) | [Github](#) | +213 791031112 | s.mahfoud@engineer.com

PROFILE

Dedicated student pursuing a Master's degree in Computer Systems Engineering with a background in Backend Development & Networking & strong enthusiasm for Data Science and Cloud technologies. Known for my technical curiosity and problem-solving abilities since a young age, I have a passion for understanding complex systems and creating innovative solutions. Actively engaged in scientific clubs, I bring an outgoing personality, innate motivation, and disciplined work ethic. Committed to continuous learning and making impactful contributions to the field.

Harvard University CS50X,CS50ai **DataCamp** Associate Data Scientist in Python

Google Cloud Computing Foundations

PROFESSIONAL EXPERIENCE

Xpertify Solutions

Backend Development intern

Sidi Bel abbes, Dz

March 2023 - Present

- Proficient in **Django Rest Framework** with **Python** and **PostgreSQL**, leveraging **Docker** and **cloud solutions** for efficient media file management.
- Engineered **efficient database structures** to enhance performance.
- Developed **well-documented APIs** adhering to industry standards.
- Collaborated on diverse projects, delivering tailored solutions to meet client needs.
- Demonstrated a steadfast commitment to **quality-focused development**.

Ooredoo Algérie

IP Networking Intern

Oran, Dz

September 2023 - October 2023

- Acquired **hands-on experience** in LAN and WAN networks (L2/L3), exploring various **telecommunication services** within the company.
- Immersed in **IP operations and WAN/MPLS infrastructure**, gaining insights into **network automation with Python and PyQt**.
- Developed a tool for equipment **configuration automation** based on a configuration file.
- Conducted practical laboratory exercises with Packet Tracer, covering a wide range of networking essentials such as **Vlans, Etherchannels, HSRP, and Tunneling**.

PROJECTS

Building a Real-Time Data Pipeline with Cloud Dataflow

June 2024

GCP Lab

- Provisioned resources like a **BigQuery** dataset/table and **Cloud Storage bucket** using Cloud Shell and Google Cloud Console.
- Implemented a **Pub/Sub to BigQuery Dataflow** template to create a **data pipeline**.
- Executed the Dataflow pipeline, ingesting **real-time taxi ride data** from Pub/Sub and storing it in BigQuery.

Fleet Management System

February 2024 - June 2024

IoT Developer

- Engineered real-time GPS data collection using SIM808 module on Arduino Uno
- Implemented GSM data transmission to a **MQTT Broker** to an API with **NodeRed** for continuous data flow, leveraging IoT connectivity.
- Developed a RESTful API with Django and PostgreSQL for data storage and processing and Visualisation.

Traffic Sign Recognition System Development

March 2024

CS50ai Project

- Implemented **data preprocessing** using **OpenCV-Python (cv2)**.
- Resized images to ensure uniform dimensions for model compatibility.
- Developed a neural network model using **TensorFlow for traffic sign classification**.
- Conducted experiments with various architectures and hyperparameters.
- **Evaluated model performance** and fine-tuned parameters for optimal accuracy.

School Management Saas

January 2024 - March 2024

Backend Developer

- Engineered a comprehensive solution facilitating effective management of schools, classrooms, staff, and student groups.
- Designed and implemented lectures management functionality, enabling automated **notifications** to parents for student absences.
- Integrated **Cloudinary Cloud Storage** for efficient media file storage and management.
- Ensured compliance with industry standards and best practices.

ACHIEVEMENTS & CERTIFICATES

Certificates

- Google Cloud Computing Foundations | Google Cloud skill boost
- CS50ai : Introduction to Artificial Intelligence with Python | Harvard University
- CS50X: Introduction to Computer Science | Harvard University
- Understanding Cloud Computing | DataCamp
- Python Made Easy for Beginners | Small Basis Rune Thomson

Competitions & Achievements

- 2nd Place DevFest Hackathon | Google Developer Groups Sba | Nov 2023
- 3rd Place AlphaCTF | Alphabit Club | Feb 2023
- 3rd Place DevFest Hackathon | Google Developer Groups Sba | Nov 2021
- 5th Place IngeHack CTF | Ingeniums Club | 14/10/2020
- 7th Place Bsides CTF | Shellmates Club | May 2023

SKILLS

- **Programming Languages:** C, C++, Python, Bash Scripting
- **Embedded Systems:** RTOS, Wireless Communication, Embedded Design Patterns
- **Operating Systems & Cloud:** OS Fundamentals, Cloud Computing (GCP), Linux
- **Web & Networking:** Web Services, Pub/Sub Systems, Routing and Switching, Networks
- **IoT Technologies:** ESP32, Raspberry Pi, Arduino, IoT Platforms (AEP) - ThingsBoard
- **Backend Technologies:** Django, Flask, SQL
- **Distributed Systems & Microservices**
- **Databases:** PostgreSQL, MySQL, Cassandra, MongoDB, Redis Cache
- **Containerization & Deployment:** Docker

EDUCATION

Higher School of Computer Science Sidi-Bel Abbes

Sidi Bel Abbes, DZ

2nd year secondary cycle (Computer Systems Engineering)

2020 - Present

Relevant Courses Completed :Advanced Databases (SQL, noSQL ,PL Sql, ETL, PowerBi) ,Networks (Routing & switching, IPv6, Qos),Distributed Systems, Data Analysis,Embedded systems ,Operating System,Analysis and design of advanced algorithms,Web Languages and Tools.

Volunteering

Alphabit Club

Sidi Bel Abbes, Dz

Development Team Vice Team Leader & Project Manager

- Led a team for the Alphabit Platform project from ideation to completion.
- Streamlined processes and enhanced team collaboration.
- Delivered results within tight deadlines, showcasing resilience under pressure.

Google Developer Student Clubs Sba

Sidi Bel Abbes, Dz

- **Intro To Backend development Conference:**
 - Instructed fundamental concepts: OSI Layers, IP addresses, and HTTP/DNS functionalities.
 - Discussed security risks, focusing on SQL injections.
 - Guided participants on future trends like AI and Serverless.