





Driven Data Scientist/ML Engineer with an Engineering degree and Master's in Computer Science from ESI, Algeria. A proven problem-solver; I quickly mastered analytical techniques during an internship at Université de Sherbrooke and AI-driven analytics as an AI Researcher at Université Laval, Canada, using LLMs and NLP models to deliver actionable insights. Based in Riyadh, I bring sharp intelligence and rapid learning to align data analytics with business goals, creating smart decision support.

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Languages

French

Professional [TCF](#)

English

Professional

Arabic

Native

Skills

Data science

- Python
- R
- matplotlib, numPy, Scikit-Image
- pytorch
- astra ToolBox
- LLMs
- NLP

Database

- PostgreSQL
- Oracle
- MongoDb
- PhpMyAdmin

Algorithmic and programming

- C
- C#
- Java
- SpringBoot

Virtualization

- Docker
- Kubernetes

Operating systems

- Windows
- Linux(Redhat, Ubuntu)

Education

From 2018 to 2023

Master's and Engineering Degrees

Higher School of Computer Science (ESI) Algiers, Algeria

Graduated with honor

From 2015 to 2018

Baccalaureate

Nedjay Othman High School Batna, Algeria

Rating: [Excellent \(18.26 / 20\)](#)

Experiences

From February 2025 to April 2025

Freelance ML/AI Consultant

- Analyzed and supported the development of custom AI solutions for diverse use cases.
- Developed a sentiment analysis solution using LLMs to classify comments as positive or negative.
- Implemented a smart reply feature powered by OpenAI models.

From September 2023 to December 2024

PhD Student and Researcher

Laval University Quebec, QC, Canada

- Conducted doctoral research on leveraging Large Language Models (LLMs) for the automated decomposition of software applications into microservices, developing innovative approaches to enhance scalability and modularity.
- Co-authored and presented the paper "[An Empirical Study on Microservices Deployment Trends, Topics, and Challenges in Stack Overflow](#)" at IEEE SANER 2025, in collaboration with Professors Mohamed Aymen Saied, Mohammed Sayagh, and Ali Ouni, analyzing Stack Overflow discussions to reveal practical microservices adoption insights for industry and academia.
- Worked with research teams to build and test software and AI - based solutions, showing quick thinking and problem-solving in tough technical projects.

From September 2022 to September 2023

Research Intern

University of Sherbrooke Quebec, QC, Canada

- Built a simulator to process X-ray images using a new method (SSRT) allowing non-invasive visualization of internal structures.
- Contributed to image processing advancements for non-destructive imaging, supporting applications in safe, harm-free object analysis.
- Quickly learned complex algorithms and worked effectively with research teams to meet project objectives, showcasing strong problem-solving skills.

From September 2021 to December 2021

Software developer intern

Sonelgaz Algiers, Algeria

Design and implement a web application that facilitates the generation of web services.

## Skills

### Web development

- Node Js
- PHP
- Html
- Css
- JavaScript
- JQuery
- Bootstrap
- Angular

### Mobile development

- Kotlin

### Software testing

- Junit
- Mockito
- Selenium
- Cucumber

### Design

- Adobe Xd
- Adobe Illustrator
- Figma

### Others

- Jupyter
- Colab
- Design Pettern
- UML
- Git/GitHub
- Microsoft Office

## Experiences

From September  
2020 to July 2021

### Developer & Graphic Designer School of AI (SOAI) Algiers, Algeria

- Organized and participated in events focused on artificial intelligence, enhancing community engagement and knowledge sharing.
- Created graphic designs, including logos, charts, and posters, using illustration tools to support AI-related events and initiatives.

From September  
2018 to July 2021

### Web Developer Club Scientifique de l'Esi (CSE) Algiers, Algeria

- Maintained club websites and supported digital initiatives.

## Projects

### Sentiment app

03/2025

A sentiment analysis solution using LLMs that classify comments as positive or negative.

Technologies : FastAPI, LLMs

### Smart Reply app

02/2025

A smart reply application that generates context-appropriate responses to given emails.

Technologies : Flask, OpenAI

### Replication Package

03/2024 - 06/2024

Developed a replication package for a study on microservices deployment trends, topics, and challenges in Stack Overflow, using topic modeling with BERTopic as presented in the associated [research paper](#).

Technologies : Python, BERTopic, Stack Exchange Data Explorer

### Analyse Antipattern Microservices

01/2023

Analyzed a set of antipatterns in microservice applications and compared the proposed method with three existed approaches.

Technologies : Python

### Computed Tomography Simulator

01/2023 - 09/2023

A CT simulator that process X-ray images using a new method (SSRT), allowing visualization of internal structures of 3D objects.

Technologies : Python, astra toolbox, 3D slicer, SSRT

### Force Graph

11/2022

- Create a visual code on football data, based on the force graph.
- Add interactions such as movement and zoom to the graph.

Technologies : JavaScript, D3.js

### Crop Detector

08/2022

- Create an AI model and a web application that detects the most suitable crop to plant on a defined soil.

Technologies : Node js, React, Tensorflow, keras, pandas, sklearn, pickle

### Stress Classifier

04/2022

- A classifier model that can distinguish whether a person is stressed or not according to training data such as the degree of stress, heartbeats...

Technologies : Python, flask

## Certificates

### Introduction to advanced tomography

Coursera [certification link](#)

### Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization

Coursera [certification link](#)

### Fundamentals of Deep Learning

Nvidia [certification link](#)

### Neural Networks and Deep Learning

Coursera [certification link](#)

### Full-Stack Web Development with React Specialization

Coursera

### Modern JavaScript for React JS - ES6.

Udemy [certification link](#)

### Motion Design

Udemy

### UI/UX Design Specialization

Udemy

## Projects

### Rental of driverless cars

03/2022 - 06/2022

- My role in this project is to participate in:

1/The design of the architecture of the solution.

2/The design of the database.

3/The implementation of the BackEnd part.

Technologies: Node Js, Postgres, FireBade, Windsor

### Play golf ?

03/2022

- A classification model based on "Decision Tree" and "Naive Bayes" classifiers to determine whether a person is permitted to play golf based on pre-defined categorical weather data.

Technologies: Python, pandas, scikit-learn, numpy, timeit, graphviz

### Mini-compiler

11/2021 - 01/2022

- Implement a mini-compiler that performs the different phases of compilation, namely lexical analysis and syntactic-semantic analysis.

Technologies: Flex, Bison

### VTC Client & Admin

10/2021 - 01/2022

- Design and production of 2 websites:

1/ allows users to post their ads in order to find carriers to deliver their packages.

2/ an admin website that allows them to manage the VTC Client website.

Technologies: Html, Css, JavaScript, Bootstrap, Php

### CirSim

02/2020 - 06/2020

- Design and implement a desktop application that allows students to design and simulate a digital logic circuit.

Technologies: C#, .Net