OURAOU Mohamed Abdelilah

BSc Computer Science (2025) · MSc Software Engineering, M1 in progress

Algiers, Algeria • +213 559249914 • abdelillah.ouraou@gmail.com

GitHub: abdelillah01 • LinkedIn: Mohamed Abdelilah OURAOU

PROFESSIONAL SUMMARY

Computer Science graduate (BSc, 2025) and MSc Software Engineering student. Co-author of a paper accepted at ICIST 2026 on machine learning optimization. Skilled in full-stack development, machine learning and secure coding. Seeking a master's programme in computer science.

EDUCATION

Master's in Software Engineering (M1, in progress)

University of Science and Technology Houari Boumediene (USTHB), Algiers, Algeria

Bachelor (Licence LMD) in Computer Science – Software Engineering Track

University of Science and Technology Houari Boumediene (USTHB), Algiers, Algeria • Degree obtained in 2025

RESEARCH EXPERIENCE

Final-Year Research Project – Software Fault Prediction

University of Science and Technology Houari Boumediene (USTHB), 2025 • Supervisor: Ahmed Taha Haouari

- Co-authored the paper “Salp Swarm Algorithm for Hyperparameter Optimization in Software Fault Prediction” (team of four), **accepted at ICIST 2026**.
- Focused on improving hyperparameter tuning of machine learning models on imbalanced software engineering datasets.
- Developed an SVM-based fault prediction model optimized using the Salp Swarm Algorithm with Lévy flights.
- Improved prediction accuracy via feature selection and grid search optimization, with evaluation on real-world datasets and comparison against traditional optimization methods.
- Produced a scientific report and presentation; implemented in Python (Scikit-learn, NumPy, Matplotlib).

PROJECTS

UniPathdz

Personal Project | Next.js 15, React, TypeScript, Supabase (Postgres, RLS), Drizzle ORM, Zod, Docker

- University-application guidance platform for Algerian students. Structured the code as a pnpm/Turborepo monorepo with framework-free, unit-tested business logic; implemented server-verified payments (SlickPay), entitlement-based access control and Postgres Row Level Security.
- Deployed on a VPS with multi-stage Docker builds and Caddy (automatic HTTPS), with security headers and per-IP rate limiting.

Secure Password Manager

Personal Project | Django REST, Next.js, PBKDF2, AES Encryption

- Full-stack password manager with user authentication, PBKDF2 key derivation, and AES encryption for secure storage.

Movie Recommendation Website

Personal Project | Django, Next.js, PyTorch

- Full-stack movie recommendation platform using Django REST and Next.js, with a neural network for personalized suggestions.

Backend for Social Media Bot

Personal Project | Python, Discord API, Aiohttp, APScheduler

- Asynchronous Python backend for automated social media posting with OAuth2 authentication and RESTful APIs.

Freelance Web Development

Freelance | Web development

- Worked as a freelancer on website projects for multiple clients.

TECHNICAL SKILLS

Programming: Python, Java, C, JavaScript, TypeScript

Machine Learning: PyTorch, Scikit-learn, NumPy, Matplotlib

Optimization: Metaheuristics, feature selection, hyperparameter tuning

Web & APIs: Django REST Framework, Spring Boot, Next.js, React, REST API design

Databases: MySQL, PostgreSQL (Supabase, Row Level Security), Drizzle ORM

Deployment: Docker, Docker Compose, Caddy

Cybersecurity: OWASP, Secure Coding, Vulnerability Assessment

Cryptography: PBKDF2, AES encryption

Network Tools: Wireshark, Nmap

Async Backend: Aiohttp, APScheduler, OAuth2

Version Control: Git, GitHub

LANGUAGES

Arabic	English	French
Native	IELTS Academic 6.5	B2