Mohamed Achref Hemissi

Mail: mohammedachref.hemissi@insat.ucar.tn · Linkedin: Mohamed Achref Hemissi · Github: AchrefHemissi +216 50 548 550

PROFILE

Final-year Software Engineering student specializing in AI/LLM systems, with hands-on experience building agentic applications, RAG pipelines, MCP-based systems, and the backends that serve them. Experienced in shipping AI features with FastAPI microservices and seeking a 4–6-month AI Engineering internship focused on building and deploying GenAI, RAG, and agent systems, available from February 2027.

TECHNICAL SKILLS

AI / LLM: Prompt Engineering, LLM API Integration, RAG Pipelines, MCP (Model Context Protocol)
Languages: Python, Java, JavaScript, C/C++, Rust, SQL
Machine Learning Libraries: TensorFlow, PyTorch, Scikit-learn
Backend: REST APIs, GraphQL, FastAPI, Node.js, Actix-Web
Frontend: React.js, Next.js, Angular
Distributed Systems: microservices, message queues (RabbitMQ, Kafka), Celery
Databases: MySQL, PostgreSQL, Redis, MongoDB, Neo4j, Qdrant
Big Data: Apache Spark, Hadoop
Cloud & Infrastructure: Azure**,** Docker, Kubernetes, Helm
Tools & Development Practices: Git, GitHub, Linux, Design Patterns, UML

EDUCATION

National Institute of Applied Science and Technology (INSAT) **September 2022 - Present**
National Diploma of Engineer in Software Engineering Tunis, Tunisia

EXPERIENCE

Back-End Developer (Part-time) **SpeakDuo | December 2025 – November 2026**

Engineered core backend systems for a language-learning platform using Python, FastAPI, and PostgreSQL. Built the matching engine that pairs learners into 1:1 practice sessions, and a suite of real-time AI agents on the LiveKit SDK, a conversation host that joins calls to guide practice, and live captions. Designed these as clean-architecture modules, tested at each layer.

Full Stack Engineer Intern **Orange Tunisie | July 2026 – August 2026**

Selected for the Orange Summer Challenge (Orange Digital Center), a competitive program, to help a startup grow a fintech project. Working with a team as a full-stack developer, engineering both frontend and backend features, building REST APIs and server-side logic in Python and developing the user-facing interface. Following secure development and data-protection practices.

Software Engineer Intern – AI Agents · *code* · *demo* **DarBlockchain | February 2026 – May 2026**

Built FuzzMing, an open-source LLM-powered fuzzing assistant for smart contract security. Engineered a multi-round feedback loop where the LLM generates Solidity invariant test suites from contract source, Forge executes them, and compile errors plus LCOV coverage gaps are fed back as context for the next iteration. Deduplicated and accumulated confirmed bugs across rounds without interrupting the session. Benchmarked the system against a professional audit on a 161-line DeFi contract, achieving zero false positives.

Software Engineer Intern · *code* · *demo* **DarBlockchain | July 2025 – August 2025**

Created DeFies, an AI-driven DeFi platform that automates blockchain interactions through intelligent agents. Architected an AI agent using Model Context Protocol (MCP) for tool calling and function dispatch, enabling natural-language processing of complex DeFi operations on Sei blockchain. Designed smart contract integration for one-click liquidity management across multiple DEXes (DragonSwap, Sailor), built microservices architecture combining Next.js frontend, Rust backend (Actix-Web), and Solidity contracts.

PROJECTS

FoundIT: Lost & Found Item Matching Mobile Application **April 2025 – May 2025**
Firebase, RabbitMQ, Azure, FastAPI, Qdrant, **Redis, Neo4j** · *code*

Developed a mobile platform that connects people who lost items with people who found them through intelligent matching. Designed a FastAPI-based microservice architecture and added Qdrant vector similarity for accurate text and image matching. Optimized system communication through RabbitMQ message queues, ensuring reliable data flow between Firebase and specialized backend services.

CERTIFICATIONS AND COURSES

Data Parallelism: How to Train Deep Learning Models on Multiple GPUs, NVIDIA Deep Learning Institute **January 2026**

Efficient Large Language Model (LLM) Customization, NVIDIA Deep Learning Institute **October 2024**

Machine Learning Specialization, DeepLearning.AI & Stanford Online **December 2024**

ACHIEVEMENTS

First place in the Hack The Harvest Hackathon organized by Codex Junior Entreprise & EZZAYRA **May 2026**

Third place in the AI for the New Generation Hackathon organized by EY and IBN Khaldoun University **December 2024**

Second place in Code Quest Competitive Programming Contest organized by ACM INSAT **December 2023**