Mohamed Amine HAMMOUTI

COMPUTER SCIENCE ENGINEER
(Networks and Data Engineering)

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PROFILE

Motivated engineer with expertise in networking, telemetry, and data acquisition systems. Experienced in real-time field operations and downhole sensor integration, ensuring reliable performance in demanding environments. Skilled in designing secure infrastructures, optimizing sensor-to-surface data transmission, and maintaining telecom sites (energy systems, AC units, GSM/3G/4G). Dedicated to delivering efficient, innovative solutions for energy and industrial projects.

ABOUT ME

DATE OF BIRTH: 15/01/1999

STATE OF BIRTH: Ain Temouchent, Algeria

NATIONAL SERVICE STATUS: Exempt

Experience

Teacher of IT in High School (Hadj Bouziane Abdelkader) Ain Temouchent   Oct 2025 - Till now

- Teaching computer science fundamentals, networking, digital systems, HTML, and algorithm design (algorithme) to high school students.
- Guiding students in practical applications, IT project-based learning, HTML web exercises, and algorithmic problem-solving.

Field Maintenance Specialist Engineer, ATM MOBILIS UOP Ain Temouchent   July 2025 – Sept 2025

- Conducted preventive and corrective maintenance on RAN, transmission, and energy systems across 50+ telecom sites.
- Diagnosed faults in 2G/3G/4G equipment (RRU, ODU, BTS) and restored service in coordination with NOC.
- Performed ATP and site verification tests post-deployment and after major hardware/software upgrades.
- Managed site energy systems (rectifiers, generators, batteries, solar panels), ensuring 99% uptime and operational continuity.
- Handled maintenance of power supply units, AC/DC conversion systems, solar setups, and monitored fuel levels for diesel generators.
- Collaborated with vendors and subcontractors for network upgrades, expansions, and hardware swaps.

Equipment: Huawei, ZTE (BTS, RRU, BBU, ODU), Nokia (DWDM), Ericsson, Juniper routers.

Data Engineer, GWDC (Great Wall Drilling Company) Hassi Messaoud   June 2025 - July 2025

- Rig up, operate, and maintain surface sensors and data acquisition systems (WITS/WITSML).
- Acquire and monitor real-time drilling parameters, including Rate of Penetration (ROP), Weight on Bit (WOB), Weight on Hook (WOH), Revolutions Per Minute (RPM), Standpipe Pressure (SPP), Torque, and Flow Rate.
- Ensure the accuracy, consistency, and quality of acquired data from all rig sensors.
- Transmit real-time data to client servers and remote operation centers (ROCs) using secure communication protocols.
- Assist in the generation of logs and daily drilling reports (DDR, EOWR), and collaborate with drilling and geology teams.
- Support formation evaluation and geological interpretation through real-time data monitoring and analysis.
- Troubleshoot and maintain data systems to ensure uninterrupted data flow and minimal downtime.

Freelance Web & Desktop Application Developer | IT & Network Support Specialist   Nov 2020 - Till now

- Application Development: Designed and developed custom web and desktop applications using a variety of technologies, including Laravel, Java, Python, and Flask.
- Application Maintenance: Enhanced and upgraded existing software solutions, optimizing performance and ensuring superior client satisfaction.
- Technical Support: Delivered ongoing support and troubleshooting for web and desktop applications, ensuring reliability and minimizing downtime.
- IT Support Services: Provided comprehensive IT solutions, including system updates, data backup and recovery, and user assistance to ensure operational efficiency and data integrity.

- Network Installation and Troubleshooting: Installed, configured, and maintained network infrastructure, resolving technical issues to ensure seamless connectivity and optimal performance.

Web Development Intern, HD Consulting Tlemcen   **Nov 2019 - Sept 2020**

- Developed web applications using Laravel framework.
- Collaborated with a team to implement features and optimize code, enhancing user experience.

Education

Master (Ain Temouchent University Belhadj Bouchaib)   **2020 - 2022**

- Domain: Mathematics and computer science
- Sector: Computer Science
- Speciality: Networks and Data Engineering

Bachelor (Ain Temouchent University Belhadj Bouchaib)   **2017 - 2020**

- Domain: Mathematics and computer science
- Sector: Computer Science
- Speciality: Computer System

BAC (Omar Dehina High School Laghouat)   **2016 - 2017**

- Speciality: Experimental science

FORMATION

CISCO Certified Network Associate (INSIM ORAN)   **Sep 2024 – June 2025**

- **CCNA 1** : Introduction to Networks
- **CCNA 2** : Switching, Routing, and Wireless Essentials

Studying a foreign language (English) (Odyssey Learning Center Ain Temouchent)   **2020 - 2023**

- C1 Level Certificate of Completion

Full Stack Developer Certificate (One million ARAB Coders udacity)   **2019**

- Certificate of completion Full Stack Development Track
- Certificate of participation Full Stack Development Track

DEUA (Ain Temouchent University of Continuing Education)   **2017 - 2021**

- Speciality: Management public

BAC UFC (Laghouat University of Continuing Education)   **2016 - 2017**

- Speciality: Experimental science

PROJECT

- **License Key Manager Web Application:** Developed a robust Java and Python-based web application using JavaFX, Flask, and MySQL to manage software licenses, ensuring secure verification, addition, updates, and comprehensive license tracking.
- **Retail and Wholesale Store Management Software:** Engineered a powerful software solution designed for both retail and wholesale sectors. Streamlined inventory control, sales tracking, and customer management, significantly improving operational efficiency.
- **Handwritten Numbers Recognition System:** Developed an advanced AI-driven system for accurately recognizing handwritten numbers, leveraging machine learning algorithms for precision and efficiency.
- **Handwritten Arabic Character Recognition System:** Created a cutting-edge AI-based system for recognizing handwritten Arabic characters, employing advanced deep learning techniques. (End-of-Study Master's Project)

- **Out of Stock Medicines Website:** Designed and launched a dynamic, responsive website for tracking and managing out-of-stock medicines, addressing critical inventory challenges in the healthcare sector. (End-of-Study Licence Project)
- **Tic Tac Toe Android Game:** Developed an engaging and interactive Tic Tac Toe game for Android, emphasizing user-friendly design and gameplay. (Academic Project)
- **Library Management System:** Conceptualized and executed an innovative library management system, optimizing library operations and enhancing user interaction. (Academic Project)

PROFESSIONAL SKILLS

- **Data Acquisition & Real-Time Monitoring (Oil & Gas):**
  - Hands-on experience with WITS and WITSML systems for real-time drilling data acquisition.
  - Monitored key parameters: ROP, WOB, SPP, Torque, RPM, and Flow Rate.
  - Ensured data quality, accuracy, and integrity during transmission to client servers and ROCs.
  - Supported formation evaluation, geological interpretation, and reporting (DDR, EOWR, MASTERLOG).

- **Telecom Field Engineering & RAN Maintenance:**
  - Proficient in 2G/3G/4G RAN systems (BTS, RRU, BBU, ODU) and transmission technologies (Microwave, DWDM).
  - Skilled in preventive and corrective maintenance using Huawei, ZTE, Ericsson, and Nokia equipment.
  - Experienced in ATP testing for site verification and network expansion.
  - Expertise in RF troubleshooting (VSWR, feeder faults, KPI analysis) and NOC coordination.
  - Strong knowledge of telecom power systems: rectifiers, batteries, diesel generators, and solar setups.
  - Ensures compliance with site safety, grounding, and electrical standards.

- **Network Engineering & Security:**
  - Solid understanding of TCP/IP, OSI models, subnetting, and address resolution.
  - Hands-on experience with LAN/WAN deployment, DHCP, DNS, NAT, ACLs, and ICMP tools.
  - Configured routing protocols (RIPv1/v2, OSPF) and advanced IPv6 addressing (SLAAC, DHCPv6).
  - First Hop Redundancy Protocols: HSRP, VRRP, GLBP.
  - Implemented VLANs, Inter-VLAN Routing (Router-on-a-Stick, Layer 3 switches), and STP.
  - Deployed EtherChannel for redundancy and bandwidth optimization.
  - **Switching Security & Hardening Techniques:**
    - Enforced enterprise-grade port security to prevent unauthorized access.
    - Deployed DHCP snooping to eliminate rogue DHCP servers.
    - Applied dynamic ARP inspection (DAI) to combat ARP spoofing and poisoning threats.
    - Hardened VLAN configurations to mitigate VLAN hopping exploits.
    - Implemented measures to detect and neutralize STP manipulation attempts, ensuring loop-free topologies and network stability.

- **IT Support & Maintenance:**
  - Provided L1/L2 IT support: troubleshooting, system maintenance, and deployment.
  - Skilled in backup/recovery tools (Acronis, Bitdefender, Kaspersky, Norton, AVG).
  - Ensured business continuity, data security, and user training/documentation.

- **Systems & Virtualization:**
  - Proficient in Linux (Ubuntu, CentOS) and Windows (Server & Desktop) environments.
  - Skilled in Active Directory, DNS, DHCP configuration, and OS-level troubleshooting.
  - Virtualization: Experienced with VMware Workstation/ESXi and VirtualBox for lab simulation, system isolation, and resource optimization.

- **Full Stack Development & Software Engineering:**
  - **Languages:** Python, Java, C, C++, PHP, JavaScript, MySQL, SQLite.
  - **Web: H**TML5, CSS3, JavaScript, Bootstrap for responsive UI/UX design.
  - **Frameworks:** Laravel, Flask; skilled in MVC architecture and RESTful API development.

- **Tools:** Visual Studio, IntelliJ IDEA, NetBeans, Eclipse, Android Studio, Scene Builder.
- **Modeling & System Design:**
  - Experienced with UML, MERISE, ERD for system modeling, process mapping, and software architecture planning.
- **Technologies:**
  - **Equipment expertise**: CISCO, Huawei, ZTE, Nokia, Ericsson, Juniper.
  - **Communication protocols:** WITS/WITSML, TCP/IP, DHCP, OSPF.
  - **Security:** Network hardening, switch security, endpoint protection.

PROFESSIONAL NETWORKS

https://www.linkedin.com/in/mohamed-amine-hammouti/

https://github.com/HAMMOUTI-Mohamed-Amine

https://hammouti-mohamed-amine.github.io/

LANGUAGES

Arabic

Native language

English

Good level (C1)

French

Good level (B2)

SKILLS

Communication

Problem solving

Leadership

Ability to adapt

Versatility

Logic

Rigor

HOBBIES

Sports

Programming

Reading

Travel

Triathlon

Hiking