

# Academic Resume

Sidi Mohammed Kaddour

## General Information

**Full Name:** Sidi Mohammed Kaddour

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## Education

<b>PhD in Networks and Distributed Systems</b>	2016 – 2023
University of Tlemcen, Algeria	
<b>Master's Degree in Networks and Distributed Systems</b>	2014 – 2016
University of Tlemcen, Algeria	
<b>Bachelor's Degree in Computer Science</b>	2011 – 2014
University of Tlemcen, Algeria	
<b>Baccalaureate Degree in Sciences</b>	2008 – 2011
Mostafa Mostfai High School, Nedroma, Algeria	

## Experience

<b>R&amp;D Engineer, STACK/INRIA, Nantes, France</b>	Dec 2024 – Nov 2026
<ul style="list-style-type: none"><li>Integrating Concerto with Ansible for efficient dynamic reconfiguration of distributed Edge-to-Cloud applications.</li></ul>	
<b>R&amp;D Engineer, STACK/IMT Atlantique, Nantes, France</b>	Dec 2023 – Nov 2024
<ul style="list-style-type: none"><li>Research on feedback-driven performance monitoring and automated response for Edge-to-Cloud systems.</li><li>Prototyping distributed tracing and metric collection frameworks to detect service-level indicators and trigger dynamic adaptations.</li><li>Designing feedback mechanisms to improve application adaptivity and resilience across heterogeneous infrastructures.</li><li>Developing monitoring and observability solutions using Kubernetes, Prometheus, and OpenTelemetry.</li></ul>	
<b>ERP Project Manager, Groupe Kherbouche, Tlemcen, Algeria</b>	Jul 2018 – Sep 2023
<ul style="list-style-type: none"><li>Led implementation and management of ERP solutions to optimize business processes.</li><li>Coordinated cross-functional teams ensuring on-time delivery and alignment with organizational goals.</li></ul>	

**Visiting PhD Student, Bournemouth University, UK**

Jun 2019 – Aug 2019

- Developed machine learning models for smart energy solutions.
- Conducted experiments on energy consumption datasets focusing on anomaly detection and usage prediction.

**Temporary University Teacher, University of Tlemcen, Algeria** Sep 2017 – Sep 2020

- Delivered courses in Advanced Operating Systems and Cloud Computing.
- Guided students through practical sessions on Linux systems, C programming, and cloud development tools.

**Remote Delphi Developer, Soft Builder, Tlemcen, Algeria**

Apr 2014 – Nov 2016

- Developed and maintained Delphi-based applications remotely, ensuring code quality and client satisfaction.

## Teaching Experience

### 1. Advanced Operating Systems

**Period:** 2017–2020

**Institution:** University of Tlemcen, Algeria

**Level:** Bachelor (Year 3)

**Responsible:** Samir Benaissa

**Description:** Hands-on course using Ubuntu Linux. Topics included shell commands, file and network management, and C programming for process management, scheduling, synchronization (semaphores and monitors), signals, and inter-process communication.

### 2. Cloud Computing

**Period:** 2018–2019

**Institution:** University of Tlemcen, Algeria

**Level:** Master (Year 2)

**Responsible:** Zeyneb Bensafi

**Description:** Introduction to Eclipse Cloud Dev-Tool in Java. Covered environment setup, project creation, and deploying cloud applications.

### 3. Signal Processing

**Period:** 2018–2019

**Institution:** University of Tlemcen, Algeria

**Level:** Master (Year 1, Telecommunications)

**Responsible:** Hichem Hachemi

**Description:** Introduction to signal analysis using MATLAB. Focused on audio signals and feature extraction techniques.

### 4. Middleware (Course Code: XMS3IU010)

**Period:** September–December 2024

**Institution:** University of Nantes, France

**Level:** Master (Year 2)  
**Duration:** 24 hours (6h40 theory, 17h20 practicals)  
**Responsible:** Daniel Balouek  
**Description:** Covered Cloud and Edge platforms, including OpenStack deployment, Docker and Kubernetes usage, multi-tier observability, and lifecycle adaptation.

#### 5. DevOps Training (FIL Continuing Education)

**Period:** May–June 2025  
**Institution:** IMT Atlantique, France  
**Level:** Continuing Education  
**Responsible:** Hélène Coullon  
**Description:** Covered DevOps principles including CI/CD pipelines, Docker, infrastructure as code, and deployment automation.

### Supervision Activities

#### 1. Daily Activity Detection in Smart Homes

**Year:** 2022  
**Institution:** University of Tlemcen, Algeria  
**Student:** BEDRANE Bouchra  
**Responsible:** Sidi Mohammed Kaddour  
**Type:** Master's Internship

#### 2. Deep Clustering for Non-Intrusive Electrical Device Monitoring

**Year:** 2020  
**Institution:** University of Tlemcen, Algeria  
**Student:** DIABI Heythem  
**Responsible:** Sidi Mohammed Kaddour  
**Type:** Master's Internship

#### 3. Anomaly Detection in Electricity Consumption

**Year:** 2019  
**Institution:** University of Tlemcen, Algeria  
**Students:** KARZAZI Hayat and LARBAOUI Maghnia  
**Responsible:** Sidi Mohammed Kaddour  
**Type:** Master's Internship

### Open Source Projects

edge to cloud video processing use-case

2024

- Motion detection and object recognition pipeline with feedback loop and monitoring.

## Honors and Awards

- 2021**
- ISO 19011 Internal Auditor Certification
  - ITIL V4 Foundation Training

- 2022**
- ISO 9001 Training

## Academic Interests

- Edge-to-Cloud Computing**
- Adaptive systems
  - Monitoring and observability

- Machine Learning**
- Smart energy
  - Time-series and anomaly detection

## Languages

- Arabic (Fluent)
- English (Proficient)
- French (Intermediate)

## Other Interests

- Hobbies: Drawing, Mobile Game Development, Travel