

# Adam Bouafia

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## Education

<b>Vrije Universiteit Amsterdam</b> <i>Master's in Global Software Engineering (GSEEM) in Computer Science</i> <ul style="list-style-type: none"><li>Specialization: Software Engineering &amp; Green IT</li></ul>	<i>Sept 2024 – Aug 2025</i>
<b>Università degli Studi dell'Aquila</b> <i>Master's in Global Software Engineering in Computer Science</i>	<i>Sept 2023 – June 2024</i>
<b>Higher Institute of Computer Science of Mahdia</b> <i>Bachelor's in Computer Science in Software Engineering &amp; Information System</i> <ul style="list-style-type: none"><li>Final Grade: 15.2/20</li><li>Thesis: Mobile Security App 'M3ak'</li></ul>	<i>Sept 2019 – June 2022</i>

## Experience

<b>Flutter Intern</b> <i>Make it Happen</i> <ul style="list-style-type: none"><li>Developed Fiberchat, a full chat &amp; call app clone</li><li>Built a weather app using Flutter and APIs</li></ul>	<i>Monastir, Tunisia</i> <i>July 2021 – Sept 2021</i>
<b>Developer</b> <i>Atomic IT-Pro</i> <ul style="list-style-type: none"><li>Created M3ak, a security app to alert loved ones</li><li>App reached 10,000+ downloads with high ratings</li></ul>	<i>Mahdia, Tunisia</i> <i>Jan 2022 – June 2022</i>
<b>Developer</b> <i>Euromed Organization</i> <ul style="list-style-type: none"><li>Developed Dhayen, a mobile security app for a national campaign</li><li>Contributed to the Algerian national awareness campaign: 'Dhayen, Yakfi, Stop!'</li></ul>	<i>Paris, France</i> <i>July 2022 – Dec 2022</i>
<b>Researcher</b> <i>Vivieb</i> <ul style="list-style-type: none"><li>Optimized energy efficiency in Kubernetes clusters</li><li>Visualized metrics using Grafana, utilized KubeGreen</li></ul>	<i>Pescara, Italy</i> <i>Nov 2023 – Feb 2024</i>

## Projects

<b>Think Before You Save</b> <ul style="list-style-type: none"><li>Chrome extension raising awareness about the carbon footprint of cloud storage</li><li>Features: File Emissions Estimation, History Tracking, Notifications, and Interactive Tips</li><li>Open-source project on GitHub</li></ul>	<i>Dec 2024</i>
<b>Create a Serverless Kubernetes-based Resource Manager</b> <ul style="list-style-type: none"><li>Designed a serverless Kubernetes control plane using on-premise solutions like Knative</li><li>Benchmarked system performance under real-world Kubernetes deployment patterns</li><li>Evaluating scalability and elasticity using latency, throughput, and resource usage metrics</li></ul>	<i>Nov 2024</i>
<b>Comparative Evaluation of Energy Efficiency in LLMs</b> <ul style="list-style-type: none"><li>Analyzed energy consumption across LLM versions</li><li>Utilized Experiment Runner and DeepEval tools</li></ul>	<i>Oct 2024</i>

## Smart Fan Project

Sept 2024

- Controlled environmental conditions in real-time
- Used MQTT, InfluxDB, Grafana for data processing

## GramApp-Detect-API

July 2024

- Developed API for grammar checking and sentiment analysis
- Leveraged NLP techniques for efficient text analysis

## Vehicle Routing Problem Optimization

Dec 2023

- Solved VRPHLB using MILP for delivery optimization
- Applied network optimization techniques

## Gas Monitoring System

Feb 2024

- Built a gas monitoring system using Node-RED and InfluxDB
- Integrated Telegram notifications for safety alerts

## Awards

### Winner – Sustainable IT Category, Green Waves Hackathon 2024

Dec 2024

- Recognized for developing 'Think Before You Save,' a Chrome extension promoting sustainable cloud storage practices.
- Event held at the Delft University of Technology campus, fostering innovation in sustainable technology.

## Certifications

### JNCIA-DevOps (Juniper Networks Certified Associate - DevOps)

Nov 2024

### IELTS Academic - English B2

May 2023

## Skills

**Programming Languages:** Python, Java, JavaScript, C++, Dart

**Containerization and Orchestration:** Kubernetes, Knative, Docker

**Serverless and Cloud Technologies:** Serverless architecture, AWS Lambda, Knative

**Distributed Systems:** Consistency, fault tolerance, performance benchmarking

**Benchmarking and Performance Evaluation:** Experiment Runner, DeepEval, latency, throughput analysis

**Data Monitoring and Visualization:** InfluxDB, Grafana, Node-RED

**Optimization and Algorithms:** Mixed-Integer Linear Programming (MILP), Network optimization

**Natural Language Processing (NLP):** Grammar checking, sentiment analysis, API development

**IoT and Real-time Control:** MQTT, environmental control systems, data processing

**Frameworks & Libraries:** Flutter, Spring Boot, Node.js

**Tools & Technologies:** API Development, NLP, IoT, ML frameworks

## Languages

**Arabic:** Native

**English:** Fluent

**French:** Proficient

**Italian:** Proficient