# HAITAM BIDIOUANE

# Software Engineering Student @ENSIAS

Rabat, MOROCCO • h.bidiouane@gmail.com • (+212) 684-852718 linkedin.com/in/haitam-bidiouane • github.com/sch0penheimer

## **SUMMARY**

Second-year Software Engineering student @ENSIAS, interested in Cloud, DevOps, and distributed architectures. I am currently seeking an internship (2-3 months) in these fields.

## **EDUCATION**

#### **ENSIAS - SOFTWARE ENGINEERING DEGREE**

Major in Computer Science, National Higher School of Computer Science and Systems Analysis

Madinat Al Irfane, RABAT 2023 - Current

# PROFESSIONAL EXPERIENCE

DATA SOLUTIONS ENGINEER | (INTERN)

OCTOBER 2024 - MARCH 2025 (6 MONTHS)

**SNRT** - (NATIONAL COMPANY OF RADIO AND TELEVISION)

14 Av. Moulay Abdelaziz, RABAT

- Developed a SOAP-based web service using ASP.NET Core and CoreWCF for ingesting HR CSV data from legacy systems.
- Engineered an enterprise-grade ETL pipeline with Apache Airflow for orchestration, Node.js for preprocessing, Kafka for streaming, and Apache Spark for transformation, Confluent for monitoring and an integrated Cassandra NoSQL database for scalable storage.
- Built a React.js dashboard for real-time monitoring and HR data report generation.

Skills: Python, Apache Airflow, Kafka, Confluent, Apache Zookeeper, Apache Spark, React, Node.js, Express.js, ASP.NET Core, C#, CoreWCF, Docker, Cassandra

SOFTWARE ENGINEER | (INTERN)

AUGUST 2024 - SEPTEMBER 2024 (2 MONTHS)

### MINISTRY OF INDUSTRY AND TRADE

Mabella, RABAT

- Developed a centralized internship request management system with applicant-side submission, file uploads, and QR code-based tracking.
- Built an internal HR and services interface for request triage, forwarding, and decision-making, equipped with real-time notifications and workflow automation.
- Collaborated with Operations and Cybersecurity teams to deploy and secure the production-ready solution, which is now officially
  implemented at the Ministry level.

Skills: PHP, Symfony, PostgreSQL, NGINX, Redis, Docker, Mailhog, SMTP, Mercure (SSE Protocol), Merise, MVC

# **PROJECTS**

#### Keplereum: Blockchain-Based Decentralized Satellite Communication System for Ground Stations

- Designed a private Ethereum blockchain in PoA (Proof of Authority) mode using Geth, with the development and deployment of a Solidity smart contract dedicated to managing a satellite alert system, ensuring immutable traceability and decentralized validation of events.
- Developed the satellite communication application using Spring Boot business microservices, integrating service discovery via Eureka, centralized configuration, and tracing with Zipkin, all deployed on Kubernetes through declarative YAML manifests.
- Developed a React/TypeScript frontend with a Go-based WebSocket gateway for real-time monitoring of satellites and their associated private blockchain, and implemented a CI/CD pipeline for automated integration and deployment.

<u>Skills</u>: Ethereum (Geth/Solidity), Web3, Kubernetes, Java, Spring Boot, Spring Cloud, Maven, REST API, React (TypeScript), Three.js, Go, Jenkins, CI/CD, Prometheus, Grafana, Zipkin

#### Monolithic-to-Microservices Optimized Migration Environment

- Engineered a zero-downtime migration using the Strangler Fig, benchmarked against the Branch by Abstraction/Parallel Run strategies.
- Architected a Kubernetes-native migration environment using namespace isolation and dynamic HPA-based autoscaling.
- Deployed dedicated centralized observability stacks: EFK for log aggregation, and Prometheus/Grafana/Alertmanager with custom metrics for real-time migration health monitoring.

<u>Skills</u>: Kubernetes, Horizontal Pod Autoscaling, Strangler Fig Pattern, Monolithic Systems Migration, Elasticsearch, Fluentd, Kibana, Prometheus, Grafana, Database Migration (Dual-Write/CDC)

#### CERTIFICATIONS

o AWS Certified Cloud Practitioner - Amazon Web Services (AWS)

**JUNE 2025** 

o Artificial Intelligence Analyst Certificate - IBM