

# MOHAMED ZOUARI

## Software Engineer

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## SUMMARY

Software Engineer with **4 years** of experience in designing, building, and managing large-scale cloud infrastructures. **2x AWS Certified**. Passionate about using cloud computing to improve the software development experience.

## TECHNICAL SKILLS

<b>Programming Languages:</b>	Python, Java, Javascript, C/C++.
<b>Cloud Providers:</b>	AWS.
<b>Databases:</b>	SQL, MongoDB, PostgreSQL, Oracle.
<b>Automation Tools:</b>	Kubernetes, Docker, Terraform, Ansible, SaltStack, Jenkins, Gitlab CI/CD.
<b>Monitoring and visualization:</b>	Dynatrace, Kibana.

## EXPERIENCE

**SAP** | Software Development Engineer

Jul 2022 – Present

- Deploying a Large-Scale Collector Application with AWS EKS:
  - Deployed a collector app on AWS EKS, efficiently managing scaling for large data volumes.
  - Integrated dynamic Kubernetes elements to improve system resilience through active collaboration.
  - Enhanced performance and reliability, reducing downtime by 80%.
- Creation of a database collector for Dynatrace:
  - Developed a collector app to extract metrics and metadata from the SAP HANA database into Dynatrace.
  - Collaborated with architects to design and implement the SAP HANA Collector on the OpenTelemetry Collector using Python and SQL, ensuring data acquisition and integration with Dynatrace.
  - Enabled real-time data visualization and analysis by presenting collected data in a Dynatrace dashboard.
- Migration from AWS CloudFormation to Terraform:
  - Designed and implemented Terraform scripts to replace existing CloudFormation definitions.
  - Ensured the scripts enabled repeatable, error-free deployments, emphasizing modular and reusable code.
  - Enabled agile, scalable, and multi-cloud-ready environment, thereby boosting efficiency.
- Designed and improved various Jenkins pipelines:
  - Developed pipelines for configuration, testing, and applications deployment.
  - Scheduled pipelines to run at set intervals, guaranteed steady and dependable executions; integrated alerts for pipeline outcome notifications, directed updates to appropriate channels.
  - Improved productivity and efficiency, ensuring delivery of quality results.
- Improved multiple Kibana dashboards:
  - Worked to refine various dashboards in Kibana, focusing on their enhancement for better user experience..
  - Assessed current dashboards for possible improvements, aiming to boost overall usability.
  - The modifications led to higher efficiency in alerting systems and quicker responses to potential issues, significantly improving their overall effectiveness.

**Infor** | Software Development Engineer

Sep 2020 – Jul 2022

- Creation of a python CLI to upgrade deployment workflows:
  - Designed and implemented a Python-based CLI utility. This tool's focus was to manage and automatically generate deployment workflows, acting as an additional layer to an existing internal deployment tool.
  - Integrated packaging and updating processes via GitLab CI, facilitating direct building and publishing of the project artifact to an AWS S3 bucket.
  - Improved the lifecycle of all deployed products, by enabling a much faster and more efficient deployment.

- Designed and Implemented the automation to deploy a new multi-tier project on a cloud-based infrastructure:
  - Implemented automation scripts to deploy a new multi-tier project on a cloud-based infrastructure.
  - Automated the deployment of a 3-tier application on AWS with Terraform. Rolled out SaltStack scripts that efficiently configured the remotely created compute nodes.
  - The successful delivery of the project brought about complete deployment automation and provided smooth cross-account access, significantly enhancing our overall operational efficiency.

**Integration Objects** | *Software Development Engineering Intern*

*Feb 2020 – Jul 2020*

- Designed and implemented a monitoring module for a distributed and large-scale industrial IoT platform:
  - Developed a microservice to collect and manage remotely exposed metrics and data with the help of scheduled jobs. The microservice was later deployed on a multi-server Kubernetes cluster.
  - The successful implementation of this microservice significantly improved our ability to monitor and manage our large-scale IoT platform, providing us with valuable data insights.

**SELECTED INDIVIDUAL PROJECT** ( More projects available on my [portfolio website](#) )

**EagleEye**

*Jul 2019 - Sep 2019*

- Monitoring Real-Time Reputation Tracking on Twitter.
  - Using a microservice architecture, created an effective and responsive real-time tool that provided up-to-the-minute updates on public perceptions related to a specific topic.
  - Implemented back-end microservices using Spring Cloud. First, integrated a sentiment-analysis module and a stream processing module using Python to analyze Twitter data in real-time. Next, utilized Kafka as a message broker to facilitate smooth stream processing across operational containers. Additionally, established Elasticsearch as a high-performance search engine to store processed results, enabling real-time dashboard monitoring on Kibana. Finally, successfully deployed the platform on an AWS EC2 instance.
  - Effectiveness was demonstrated during the 2019 Tunisian Presidential Election, where real-time reputation comparisons of the candidates proved 87% accurate in predicting the outcome.

**Lemhaf**

*Mar 2021 - Jul 2023*

- Connective Services Sharing Online Platform
  - Developed a full-stack web platform intent on connecting service seekers and providers. This platform was designed to allow users to find various services they may require daily and enable service providers to reach and connect with their target community more effectively.
  - Crafted and put into action a three-tier architecture plan for this cross-platform online sharing website, ensuring an intuitive and navigable interface for users on various devices.
  - This project has imposed striking implications for both service seekers and providers, serving as a bridge between the two and introducing more efficiency and ease into their day-to-day transactions.

**EDUCATION**

**Paris Descartes University**, Paris, France *Sep 2019 - Oct 2020*

*M.Res, Computer Science*

Master of research degree M2, Computer Science with a major in Signal Processing.

**National Engineering School of Tunis**, Tunis, Tunisia *Sep 2017 - Jul 2020*

*M.Eng.CS, Software Engineering*

Master's degree in Computer Science with a major in Software Engineering.

**Preparatory Institute El Manar**, Tunis, Tunisia *Sep 2015 - Jun 2017*

*B.Sc, Mathematics and Physics*

**CERTIFICATIONS**

**AWS Certified Solutions Architect – Associate** [Credentials](#) *Feb 2023 - Feb 2026*

**AWS Certified Developer – Associate** [Credentials](#) *Dec 2021 - Dec 2024*