

MOHAMED ZOUARI

Software Engineer

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SUMMARY

I am a Software Engineer with 3 years of experience, working effectively in dynamic multi-national enterprise environments. I am 2x AWS Certified {SAA-C03, DVA-C01} and am passionate about reshaping cloud software development experiences. I have contributed to designing, maintaining, testing, and implementing large-scale and distributed cloud-based projects.

TECHNICAL SKILLS

Programming Languages:	Python, Java, Javascript, C/C++.
Cloud Providers:	AWS.
Databases:	SQL, MongoDB, PostgreSQL, Oracle.
Operating Systems:	Unix/Linux, macOS.
Automation Tools:	Terraform, Jenkins, SaltStack, Ansible, Vagrant, Gitlab CI/CD.
Monitoring and visualization applications:	Dynatrace, Kibana.

EXPERIENCE

SAP

Jul 2022 – Present

Software Development Engineer

- Developed a database collector for Dynatrace, a data collection solution designed to fetch metrics and metadata from SAP HANA database for comprehensive server-side database monitoring:
 - Collaborated with a team of architects to conceptualize, design, and implement the SAP HANA Collector, ensuring seamless data retrieval and integration with Dynatrace. The collector is built on the concept of the OpenTelemetry Collector, utilizing Python and SQL.
 - Conducted rigorous testing and validation procedures that guaranteed data accuracy and relevance.
 - The collected data enables visualization of properties and metadata, analysis of database-specific resource constraints, and monitoring of infrastructure-related resource constraints.
 - **Results:** Enhanced monitoring capabilities through a custom-built Dynatrace dashboard, enabling real-time data visualization and analysis to optimize system performance.
- Designed and implemented multiple Jenkins pipelines:
 - Developed pipelines for configuration, testing, and deploying applications.
 - Scheduled the pipelines to run at specific intervals, ensuring consistent and reliable executions.
 - Added alerts to inform the team about the pipeline outcomes, sending updates to dedicated channels.
 - **Results:** Productivity and efficiency were enhanced.
- Enhanced several dashboards in Kibana:
 - Identified areas for improvement in existing dashboards and implemented changes to increase usability.
 - Developed new dashboards to provide actionable insights into key performance metrics.
 - Managed and enhanced Kibana alerts linked to third-party apps.
 - **Results:** Increased the effectiveness of alerting and response to potential issues.

Infor

Sep 2020 – Jul 2022

Software Development Engineer

- Contributed to the design and the implementation of a (Python) CLI utility to manage and generate automatically the deployment workflows as a layer on top of an internal deployment tool:
 - Added package process using a GitLab CI, to build and publish the project built artifact to an AWS S3 bucket.
 - Created an update feature to get the latest shared version from the S3 bucket and promote it from CLI.
 - **Results:** Improved the lifecycle of all the deployed products. The team reached a more efficient working cycle.
- Contributed to the enhancement and the creation of new features for internal platform that manages cloud environments :
 - Updated the API layer (Python Pyramid) and the task processing side (Celery, RabbitMQ, SQLAlchemy).
- Designed and Implemented the automation to deploy a new multi-tier project on a cloud-based infrastructure on

top of the internal deployment tool :

- Implemented SaltStack scripts to fully configure the remotely created compute nodes (CloudFormation).
- Designed a new release of an internal platform for a multi-environment support and cross-account availability :
 - Designed and implemented an integration environment, refreshed from CI pipeline stages to redeploy the application servers and trigger a lambda function that refreshes the load balancer target groups.
 - Designed and implemented a temporary feature testing environment to enable developer testing newly implemented features from a code branch.
 - Exposed the platform via a custom endpoint service and AWS PrivateLink to other VPCs in external accounts.
 - **Results:** Reduced the deployment time by 100% (Fully automated), and enabled cross accounts access.

Integration Objects

Feb 2020 – Jul 2020

Software Development Engineering Intern

- Designed and implemented a monitoring module for a distributed and large-scale industrial IoT platform:
 - Implemented a microservice to collect and manage remote exposed metrics, data, using scheduled jobs.

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

EagleEye

Jul 2019 - Sep 2019

A real-time solution for reputation tracking and monitoring on Twitter

- Designed and developed a real-time reputation tracking and monitoring solution using a microservice architecture.
 - Implemented back-end microservices leveraging Spring Cloud to ensure scalability and reliability.
 - Developed sentiment analysis microservices and stream processing modules using Python to analyze Twitter data in real-time.
 - Integrated Kafka as a message broker to facilitate seamless stream processing across running containers.
 - Integrated Elasticsearch as a high-performance search engine to store stream processing results, enabling real-time dashboard monitoring.
 - Successfully deployed the platform on an AWS EC2 instance.
 - **Results:** Successfully provided real-time reputation comparisons of two candidates during the Tunisian Presidential Election, demonstrating system reliability and effectiveness, with results closely aligning with the actual outcomes.

Lemhaf

Mar 2021 - Present

A services sharing online platform

- Created a full-stack web platform, to allow users find out daily services they need and to allow service providers to connect with the community :
 - Designed, and implemented a three-tier architecture for a cross-platform online sharing website.

EDUCATION

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.

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.

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

EXTERNAL ACTIVITIES

IEEE *Active Member*

Sep 2017 - Present

ENIT Arts club *Chairman of the board, Violinist*

Sep 2017 - 2020

- Led a music band of engineering students as the violinist of the group, to participate in national musical events.