MOHAMED ZOUARI

Software Engineer

SUMMARY

Forward-thinking Software Engineer with experience, working effectively in a dynamic multi-national enterprise environment.

An 2x AWS Certified {SAA-C03, DVA-C01}. I am currently trying to reshape some Cloud Software Development experiences, contributing 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 visalization applications: Dynatrace, Kibana.

EXPERIENCE

SAP Jul 2022 – Present

Software Development Engineer

• Created a script that replicates Dynatrace environments across regions:

- Designed and implemented a python script to automate the replication of Dynatrace environments across regions. Tested and validated the script to ensure consistent and reliable deployment.
- **Results:** Reduced manual effort and increased the speed and reliability of environment replication.
- Implemented a data collector app that collects data from SAP HANA database and feeds it to Dynatrace for monitoring and created a dashboard on Dynatrace that consumes the collector data:
 - Worked with a team to design and implement a data collector app using Python and SQL.
 - Tested and validated the app, and collaborated with stakeholders to ensure data accuracy and relevance.
 - Implemented a dynatrace dashboard that monitor the collected data.
 - Results: Provided valuable insights into system performance and increased the effectiveness of monitoring.
- Designed and implemented a Jenkins Job to schedule regular refresh of SAP HANA monitoring collector apps..
 - Tested and validated the process to ensure reliable and consistent execution.
 - Results: Improved monitoring capabilities and increased the efficiency of monitoring processes.
- 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.
 - Results: Improved overall visibility into system performance and provided key insights to stakeholders.
- Managed and enhanced Kibana monitors linked to third-party apps:
 - Reviewed existing monitors and updated as necessary to ensure alerts were actionable and relevant.
 - Created new monitors to track additional metrics and improve system monitoring.
 - Results: Increased the effectiveness of alerting and response to potential issues.x

<u>Infor</u> Sep 2020 – Jul 2022

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- 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:
 - Designed the new concept of workflow as collection of deployments and test actions associated with a specific AWS deployment environment.
 - Implemented the CLI generation tool to use generic config files to create workflows in a customizable way.
 - 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 in 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).
- Reduced the deployment time by updating the used environments and automations :
 - Packaged the API codebase and the UI code and added the package process using a GitLab CI.
 - Enhanced the automation (Salt) scripts to configure the freshly created cloud compute nodes (EC2 nodes).
 - **Results:** Reduced the deployment time by 40%.
- 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.

<u>Integration Objects</u> 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)

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.
 - Implemented a responsive front-end UI (ReactJS, Ant Design, Material Design).
 - Deployed a back-end server (NodeJS, ExpressJs), connected with a non relational database (MongoDB).
 - Results: Actually working on an upgrade to add a service recommendation engine using existing data.

EDUCATION

National Engineering School of Tunis, Tunis, Tunisia	Sep 2017 - Jul 2020
M.Eng.CS, Software Engineering	
Computer Science engineering degree 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	
Ranked among the top 5% nationwide in the national exam.	

CERTIFICATIONS

AWS Certified Solutions Architect – Associate	Credentials	Feb 2023 - Feb 2026
AWS Certified Developer – Associate	Credentials	Dec 2021 - Dec 2024

EXTERNAL ACTIVITIES

IEEEActive MemberSep 2017 - PresentENIT Arts clubChairman of the board, ViolinistSep 2017 - 2020

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