

MOHAMED ZOUARI

Software Engineer | AWS Certified Developer

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SUMMARY

Forward-thinking Software Engineer with experience, working effectively in a dynamic multi-national enterprise environment. An AWS Certified Developer. 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, Windows.
Automation Tools:	Jenkins, SaltStack, Ansible, Vagrant, Gitlab CI/CD
Software Design & Methodologies:	Web Services, REST, MVC, MVP, Testing, Agile, KANBAN, SCRUM, TDD.

EXPERIENCE

Infor

Sep 2020 – Present

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. (Currently the maintainer) :
 - Designed with a team of experienced cloud developers 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.
 - Packaged the project, added the package process using a GitLab CI, to build and publish the build 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).
 - Participated in debugging and optimizing code.
- Implemented the automation to deploy a new multi-tier project on a cloud-based infrastructure on top of the internal deployment tool :
 - Designed, analyzed, and troubleshooted a new large-scale distributed system.
 - Wrote SaltStack script to fully configure the remotely created compute nodes. Using CloudFormation templates to provision the required AWS resources.
- Reduced the deployment time by updating the used environments and automations :
 - Transformed the packaging manager from (nix) to the default python packaging tool using (poetry).
 - Packaged the API codebase and the UI code and added the package process using a GitLab CI.
 - Updated the automated testing process using Jenkins.
 - Enhanced the automation (Salt) scripts to configure the freshly created cloud compute nodes (EC2 nodes).
 - **Results:** Reduced the deployment time by 40%.

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.
 - Set rules to scale up or to scale down running instances on a private cluster.
- Created a (vagrant) script to setup a multi-node and multi-machine cluster using (ansible) for configuration.

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

Lemhaf

Mar 2021 - Currently Maintaining

The first Tunisian services sharing online platform

- Created a full-stack web platform, to allow users find out 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).
 - Used a distributed storage cloud solution to host media files.
 - Implemented an authentication and authorization component with email verification.
 - **Results:** Actually Running, with (860 users, and 1540 shared services).
 - *Actually working on an upgrade by adding a service recommendation engine based on services rating and user previous activities..*

EagleEye | [Github Repo](#) | [Demo](#)

April 2019

A real-time reputation monitoring platform

- Designed and implemented a real time solution for reputation tracking and monitoring on (Twitter) :
 - Designed and implemented a microservices solution.
 - Implemented some back-end microservices using (Spring Cloud).
 - Implemented sentiment analysis microservices and stream processing modules (python).
 - Used Kafka as a message broker to handle stream processing between the different running containers.
 - Used Elasticsearch as a search-engine to save the streams processing results for a realtime dashboard monitoring.
 - **Results:** Deployed the platform on an AWS EC2 instance and tested it 3h before Tunisian Presidential Election results announcements to get a comparison of the reputation of the two candidates near the real results.

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 Developer - Associate

[Credentials](#)

Dec 2021 - Dec 2021

Google IT Automation Professional Certificate [Credentials](#)

Oct 2020 - No Exp

EXTERNAL ACTIVITIES

IEEE

Sep 2017 - Present

Active Member

ENIT Arts club

Sep 2017 - 2020

Chairman of the board, Violinist

- Led a university music band as **the violinist** of the group, to participate in events.
- Managed the artistic side of engineering students.
- Organized different arts workshops (painting, music...) and flash-mobs.