

# 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

<b>Programming Languages:</b>	Python, Java, Javascript, C/C++.
<b>Cloud Providers:</b>	AWS.
<b>Databases:</b>	SQL, MongoDB, PostgreSQL, Oracle.
<b>Operating Systems:</b>	Unix/Linux, Windows.
<b>Automation Tools:</b>	Jenkins, SaltStack, Ansible, Vagrant, Gitlab CI/CD
<b>Software Design &amp; Methodologies:</b>	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 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.
- 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 :
  - 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.
  - 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 and a feature testing environment (FTE).
  - The integration environment is refreshed from CI pipeline stages by redeploying the appserver and triggering a lambda function to refresh 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%, 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 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) :
  - Implemented some back-end microservices using (Spring Cloud).
  - Implemented a sentiment analysis microservice (Python).
  - Implemented a stream processing module using Kafka as a message broker.
  - Integrated Elasticsearch to process the streams for real time monitoring on a dashboard (Kibana).
  - Results:** Deployed the platform on AWS 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 music band of engineering students as the violinist of the group, to participate in national musical events.