Issam Benabachir

Brussels, Belgium

Portfolio

https://github.com/laajila

https://scale-it.io

Contact

issam.benabachir@gmail.com

(+32) 499 758 413

Professional experience

Senior Software engineer @ Nokia, *Belgium* — 2022 - Current

- Developing backend APIs components for a DDoS protection application that detects and mitigates attacks on the network Layer (C, Python, Asyncio ...)
- Developing a traffic generator to test DDoS tooling (Cython, Flask, Redis, MongoDB, Dpdk)
- Administration and management of toolings deployment using multiple devops technologies (Proxmox, Autoinstall, Docker, AWS, Git, Jenkins ...)
- Packaging the traffic generator in an Linux distribution and automating the deployment (Make, Netplan, Grub, Bash, Ubuntu ...)

Cloud solution architect @ Microsoft, *Belgium* — 2020 - 2022

- Leading the technical relationship with multiple clients to design, validate and optimize cloud architectures.
- Collaborate with Microsoft engineering and customers to develop complex end-to-end enterprise solutions on Azure.
- Lead technical training (Openhack) on different topics such as containers, Kubernetes and Azure Devops.
- Identify technical blockers and help customers accelerate their Azure projects by testing their solutions and sharing code samples.
- Organize demonstrations and hands-on workshops to show Azure technical capabilities, compliance and governance methodologies.

Software engineer @ Micropole, *Belgium* — 2018 - 2020

- Worked on multiple short and long term projects as a tech lead, to Deliver cloud native applications processing terabytes of data for multiple clients.
- Leveraged Terraform, with state locking in DynamoDB, to manage AWS infrastructure and deployments.
- Managed teams of up to 3 data engineers on multiple projects.
- Took initiatives to improve software enginnering practices and promoted wide adoption of version control (Github), infrastructure as code (Docker, Ansible, Terraform), reusable code, and test driven development.

Data engineer @ Eura Nova, *Belgium* — 2016 - 2018

- Wrote data processing jobs in Python (Pandas/Numpy Libraries) and Spark (Scala API) .
- Wrote data anonymization scripts to ensure GDPR compliance.
- Assisted data scientist in deploying their machine learning models, and re-factored the scripts to accommodate high volumes of data.
- Designed big data architecture for batch and stream processing (Lambda architecture with Spark, Flink, Kafka and Hadoop HDFS)

Full stack developer @ Capgemini, *France* — 2016 - 2016
Type approval freelancer @ Approve IT! , Inc. , *USA* — 2014 - 2016
Strategy engineer @ Merchant Marine Departement , *Morocco* — 2013 - 2014

Education

Master of Science in Computer Science @ Georgia Tech, USA — 2022 - Current

Master in Web technologies (Completed 45 on 75 credits) @ IMT Atlantique, France — 2016 - 2016

Civil engineering Degree @ Mohammadia School of Engineers, Morocco   2009 - 2012
Classes préparatoires (Mathematics) @ Marrakech Prépas, Morocco   2006 - 2009

Projects and consulting

Aviation software migration to AWS
- Designed and implemented a serveless architecture in AWS, to load and transform data.
- Set up notification system for different critical monitoring metrics for site reliability.

Websites migration to AWS
- Assisted in the migration of websites (Servers → EC2, Databases → RDS PostgreSQL, domain names → Route 53) from OVH to AWS.
- Assisted in setting up the Landing zone in AWS and ensured the right security configuration.
- Profiled servers and websites performance and proposed an architecture to scale the number of users x5.

Cloud Native ETL
- Designed and implemented a servless ETL to load data from S3 to Redshift, leveraging StepFunctions for orchestration and QuickSight for dashbording and visualization
- Evolved the ETL code base to be a packaged software product sold to other clients.
- Created Lambda functions that generate SQL based on a set of Metadata describing the data model.

Big Data bootcamp
- Made a real time processor for bike-sharing data in Flink and a data-visualization module with Kibana and Elasticsearch.
- Participated in Bosch machine-learning contest to predict internal failures along manufacturing assembly lines.

Cloud native data processing software
- Designed and implemented a big data serverless ETL solution in AWS that processes, transforms and loads 10 to 15 million lines per day (provided as xml files) to Redshift within less than 15 min of their arrival to S3, leveraging EMR and Lambda.
- Created Apache Spark jobs that processed and loaded three months of data (1 billion lines) in less than 10 hours.
- Led a team of 3 people successfully to meet the project business requirements (technology choice, architecture, mentoring, task backlog, milestones and coordination).
- Presented the solution to key stack holders and organized demonstrations to emphasize the benefit of adopting cloud technologies for future projects.

IoT dev challenge competition
- Developed a script that injects 10 million messages to a web service using a load testing tool (Gatling)
- Developed a web service that receives the messages and makes an aggregation to determine the best scores of different participants.
- Designed, developed and deployed a static website that displays a Hackathon leader board.
- Made a web app that analyses TSV based on business rules in JavaScript.

Programing languages
Python, Scala, C, Rust

Languages
- French: Bilingual
- English : Bilingual (109/120 TOEFL score)
- Arabic: Maternal.
- Portugues: Elementary proficiency

Certifications
- Microsoft Azure solutions architect Expert (AZ-304 & AZ-300)
- Microsoft Azure fundamentals (AZ-900)
- AWS Certified Solutions Architect