AWS Architect & Devops Lead

Nizar Ajroud

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- ✓ AWS **Golden Jacket** (Fully certified AWS 12x - 137th **in the world,** 5th **in Canada**)
- ✓ Permanent resident Status in Canada
- ✓ MIFI diploma equivalency
- ✓ Preference for Full remote work & Full permanent position

As an accomplished AWS DevOps Lead with over 16 years of industry experience, I bring deep expertise in cloud infrastructure, automation, Docker containerization, Kubernetes orchestration, and continuous integration/continuous delivery (CI/CD).

As a fully certified AWS (12×), including all Associate, Professional, and Specialty certifications, plus recently completed AWS Agentic AI and AWS Serverless Microcredentials through 100% hands-on exam labs in a live AWS environment, I have consistently delivered scalable, secure, and efficient cloud solutions aligned with business objectives.

My background includes designing and managing complex cloud environments, ensuring operational excellence, and driving innovation through the latest AWS technologies.

I excel in task planning, roadmap development, and leading agile teams using Scrum and SAFe frameworks, fostering a culture of high performance and continuous improvement.

Professional Experience

ALITHYA 07/2022 to present

Internal Project : Chatbot Alithya **02/2026 to present**

 # 7 Generative AI Architect

Project : Integration of AWS Bedrock multi-model AI support into Alithya Internal Chatbot

As a Generative AI Architect, I designed and implemented a multi-provider generative AI architecture for Alithya's internal chatbot, integrating AWS Bedrock's foundation models (Claude for text generation, Titan for embeddings) alongside existing OpenAI capabilities. This enhancement enables the platform to leverage Amazon's managed AI services with flexible model selection, providing cost-effective alternatives while maintaining high-quality conversational AI responses through Retrieval-Augmented Generation (RAG) architecture.

- Integrated AWS Bedrock Converse API with support for multiple Claude foundation models (3.5 Haiku, 3.5 Sonnet, 4.5 Haiku, Opus) for natural language generation and Amazon Titan embeddings for semantic search, implementing intelligent model detection and instantiation logic.
- Designed and configured RAG (Retrieval-Augmented Generation) pipeline using PostgreSQL with pgvector extension for vector similarity search, enabling context-aware responses by retrieving relevant knowledge base documents through semantic embeddings.
- Configured multi-environment deployment strategy across Docker Compose (local development) and Kubernetes/Helm (production), managing AI service credentials and environment variables for 4 environments (dev, qa, demo, production).

Technical Environment:

- Cloud & AI Services: AWS Bedrock (Claude, Titan), OpenAI API, AWS IAM
- Databases: PostgreSQL with pgvector extension for vector similarity search
- Infrastructure: Docker Compose, Kubernetes (EKS), Helm, FluxCD (GitOps)
- CI/CD: Bitbucket Pipelines, Changesets for versioning
- Monorepo: Turborepo with pnpm workspaces

Methodologies : Agile/Scrum

Client : BENEVA **10/2024 to 12/2024**

Effort : 370 person-days.

 # 7 Technical Leader

Projet : Migration of GCP Assets to AWS

As a Technical Leader, I am currently leading the migration of over 100 applications from GCP to AWS, managing a team of 10 members (developers, QA, DevOps) composed of both French- and English-speaking professionals across multiple time zones (4 to 6 hours difference). This presents two major challenges: the language barrier (as Beneva's documentation is exclusively in French) and the effective coordination of geographically distributed teams.

- Primary point of contact with the client Beneva, centralizing all requests, creating corresponding tasks in Jira, assigning them, and ensuring daily progress tracking.
- Led and executed the migration of applications and databases from GCP to AWS while adhering to security and quality standards.
- Leveraged Amazon Q CLI to accelerate development workflows, utilizing AWS transformation capabilities to automate framework migrations and modernize application codebases, significantly boosting team productivity.
- Implemented a GitOps approach using Helm and FluxCD to automate deployments.
- Collaborated with an AWS ProServe security specialist to ensure compliance and the robustness of migrated architectures.

Technical Environment:

- Cloud & Infrastructure : AWS (S3, VPC, IAM, KMS), Kubernetes (EKS), Terraform, Istio, Vault
- CI/CD & Orchestration : Kuberenetes, GitOps (Helm, FluxCD), Jenkins, Github actions
- Langages : Java, Springboot, Angular
- Databases & Logging: PostgreSQL, MySQL, Dynatrace.

Methodologies : Agile/Scrum

Internal Project : AWS DEVELOPER PORTAL **04/2024 to 09/2024**

Effort : 90 person-days.

 # 6 AWS Platform Engineer

Project : AWS Harmonix plugins integration on Backstage developer portal.

As an AWS Platform Engineer in a 5-person team, I made significant contributions to integrating AWS Harmonix plugins on Backstage, considering LZA (Landing Zone Accelerator) requirements. These plugins enable non-cloud-specialized developers to be more productive by exploring ready to use AWS environments (EKS, serverless, genAI) generated via backstage scaffolding

- Customize Harmonix plugins integration according to LZA requirements (permissions, resource quotas, etc.).
- Configure authentication/authorization via 2 mechanisms: Okta identity provider & Gitlab identity provider.
- Define templates for Runtime environments (Serverless, Gen AI, etc.).
- Implement scaffolding processes for created AWS kinds (AWS environment provider & AWS environment).

Technical Environment :

- Platform Engineering : Backstage.
- IAC: AWS CDK.
- Identity Management: AWS organization, AWS IIC (SSO), LZA.
- Continuous integration: AWS code pipeline.
- Compute & Serverless: AWS ECS, EKS, Lambda.
- CDN & DNS: Cloud Front, R53.
- Identity Provider : Okta, Gitlab.

Methodologies : Agile/Scrum

Client : WOOPEN **06/2023 to 03/2024**

Contract Scope: 180 person-days.

5 AWS DevOps Lead.

Project: Woopen-Habitat

The Woopen-Habitat project involves developing a multi-platform application (web, Android, and iOS) that ensures the realization and monitoring of real estate purchase projects with professional domain referencing. This application allows users to connect with various experts (Real Estate, Design, Legal, etc.) to find the advice and expertise they need.

As a DevOps Lead in a 10-person team, I made crucial contributions to setting up the project's AWS infrastructure and implementing continuous integration and deployment for web and mobile. The CI/CD pipeline is established via GitHub Actions, data security is managed through AWS Secrets Manager, and microservices containerization is done via Amazon ECS.

- Set up AWS infrastructure for environments using Terraform.
- Provide technical support.
- Verify backup and restoration procedures.
- Define supervision and maintainability policies.
- Maintain the CI/CD pipeline (GitHub Actions).
- Implement a single sign on solution(SSO) for AWS environments (via AWS IAM Identity Center).

Technical Environment :

- Infrastructure: Terraform.
- Identity Management: AWS Organizations, AWS IAM Identity Center (SSO).
- Activity Auditing: AWS CloudTrail.
- Continuous Integration: GitHub Actions, AWS SSM, Secrets Manager.
- Compute & Serverless: AWS ECS, EC2, Lambda.
- CDN & DNS: CloudFront, Route 53.
- Integration Services: SQS, SNS, Step Functions.
- Analytics & Business Queries: AWS OpenSearch, HubSpot.
- Databases: Amazon RDS, ElastiCache Redis.
- Development Tools: Jira, Confluence.

Methodologies : Agile/Scrum.

Internal Project : GOTEST **03/2023 to 05/2023**

Effort : 60 person-days.

 # 4 Role: AWS DevOps Specialist

Project : GoTest

As an AWS DevOps Specialist in a 5-person team, I made significant contributions to setting up the project's AWS infrastructure and continuous deployment of the application. The CI/CD pipeline is implemented via GitLab CI, packaging is managed via Helm, and microservices containerization is done via Amazon EKS (Fargate).

- Set up AWS infrastructure using CloudFormation.
- Manage existing infrastructure (Kubernetes / Docker / Azure Cloud).
- Document infrastructure and processes in place.
- Prepare Helm packages for the GoTest application.
- Design and implement deployment pipelines and application tests with CI tools (Jenkins/GitLab CI).
- Define and promote CI/DevOps best practices.

Technical Environment :

- Infrastructure: AWS CloudFormation.
- Monitoring: AWS CloudWatch.
- Continuous Integration: GitLab CI, AWS Device Farm.
- DNS: AWS Route 53.
- Compute: AWS EKS, EC2.
- Storage & Backups: S3, AWS Backup.
- Development Tools: Jira, Confluence.

Methodologies : Agile/Scrum.

Internal Project : DATUM **09/2022 to 02/2023**

Effort : 120 person-days.

3 AWS Architect

Project : Intelligent document processing via RapidCapture

The RapidCapture project aims to offer the ability to quickly implement digitized document capture. This application is based on a microservice architecture in AWS EKS, documents are received via AWS Transfer Family, stored in S3, and the storage event triggers a digitization flow via SQS to Kubernetes pods. User access is managed via IAM Identity Center (AWS SSO), and operational logs are collected via AWS CloudWatch.

As an AWS Architect in a 5-person team, I made essential contributions to validating the AWS migration process using the Lift and Shift approach, as well as reviewing the application's Serverless architecture.

- Validate the AWS migration process for the RapidCAPTURE application.
- Review the Serverless architecture (check for High Availability & scalability).
- Manage AWS environments via Control Tower.
- Verify backup and restoration procedures (AWS Backup, Disaster recovery strategies).
- Define supervision policies (CloudTrail & CloudWatch) and maintainability.
- Define and promote CI/DevOps best practices.

Technical Environment :

- Migration: AWS Migration Service, AWS Application Discovery, AWS Migration Hub.
- Monitoring & Audit: AWS CloudWatch, AWS CloudTrail.
- Environment Governance: AWS Control Tower.
- Compute: AWS EKS.
- Integration Services: SQS, SNS.
- Storage & Transfer: S3, AWS Transfer Family.
- Development Tools: Jira, Confluence.

Methodologies : Agile/Scrum.

SOFRECOM TUNISIA 07/2015 to 06/2022

Client : ORANGE GROUPE FRANCE **07/2015 to 06/2022**

Contract Scope : 1680 person-days.

2 Role : Technical Manager

Project : Customer Distribution Relations Portal (RCD) - Orange France telecom operator

The RCD project involves developing a responsive web application (CRM) for managing Orange offers for retail customers.

The application is based on a dockerized microservice architecture with relational data (MariaDB) and NoSQL (Couchbase), with Docker container orchestration done via Docker Swarm.

As a technical manager leading a team of 20 people (POs, Devs, QA, and Ops), I played a dual role: responsible for the development team by planning and assigning tasks, and a DevOps leader by orchestrating a critical production deployment process periodically.

- Design the infrastructure for environments (over 120 servers).
- Implement the CI/CD pipeline (Jenkins).
- Design microservice architecture following twelve-factor practices.
- Define the quality process (code and deliverables).
- Define supervision and maintainability policies.
- Implement the Gitflow process for branch management and hotfix delivery.
- Plan SAFe increments, organize and facilitate PI planning events.
- Orchestrate a production deployment process: Iterative delivery by SAFe train (3 sprints).
- Develop DevOps culture: Conduct DevOps maturity assessment every 6 months and monitor key performance indicators (KPIs).
- Perform management tasks: team building (recruitment, etc...).

Technical Environment :

- Containerization: Docker.
- CI/CD Pipeline: Jenkins.
- Scripting and Automation: Bash, Ansible.
- Programming: Java.
- Monitoring: Prometheus, Grafana.

- Automated Testing and Security: Robot Framework, Zap.
- Databases: MariaDB, Couchbase.
- Development Tools: Jira, Confluence.

Methodologies : Agile/Scrum, Safe.

TELNET TUNISIA 08/2010 to 05/2015

Client : INGENICO-UK **08/2010 to 05/2015**

Contract Scope : 1140 person-days.

 # 1 Role : Software Engineer

Project : Maintenance project for payment terminal software.

The project involves quickly responding to incidents reported on software deployed in payment terminals.

As a software engineer, I contributed to implementing new software components (evolutionary maintenance) as well as creating user guides and technical documentation.

- Participate in estimating new development tasks.
- Implement new components and perform unit tests.
- Create technical project documents and delivery checklists.

Technical Environment :

- Embedded Development: C programming.
- Mobile Development: Android.
- Scripting: Bash.

Education

Information Technology, Engineering Degree in Computer Science **2010**

National School of Computer Science (ENSI), Tunis, Tunisia.

Information Technology, Master's Degree in Computer Science and Multimedia **2008**
Higher Institute of Computer Science and Multimedia (ISIMS), Sfax, Tunisia.

Trainings & badges

AWS Cloud Quest: Generative AI Architect **2025**
Amazon web services.

AWS Cloud Quest: Generative AI Practitioner **2025**
Amazon web services.

AWS Cloud Quest: Serverless developper **2025**
Amazon web services.

AWS Knowledge: Amazon Q Developer Fundamentals **2025**
Amazon web services.

AWS Knowledge: Serverless Architect **2025**
Amazon web services.

AWS Knowledge: Migration Foundations **2025**
Amazon web services.

LFS142: Introduction to Backstage **2024**
Linux Foundation.

AWS: Well-Architected Proficient **2024**
Amazon web services.

Certifications

AWS Agentic AI Demonstrated **2025**
Amazon Web Services.

AWS Serverless Demonstrated **2025**
Amazon Web Services.

AWS Machine learning Specialty **2025**
Amazon Web Services.

AWS Machine learning Engineer – Associate **2025**
Amazon Web Services.

AWS GenAI practitionner – Early Adopter **2025**
Amazon Web Services.

AWS Data Engineer – Associate **2024**
Amazon Web Services.

AWS Advanced Networking Specialty **2024**
Amazon Web Services.

AWS Security Specialty **2024**
Amazon Web Services.

AWS Devops Engineer– Professional **2023**
Amazon Web Services.

AWS Solutions Architect – Professional **2023**
Amazon Web Services.

AWS Developer – Associate **2023**
Amazon Web Services.

AWS Cloud Practitioner – Associate **2023**
Amazon Web Services.

AWS SysOps Administrator – Associate **2022**
Amazon Web Services.

AWS Solutions Architect – Associate **2021**
Amazon Web Services.

HashiCorp Certified: Terraform Associate **2021**
Terraform.

Certified Kubernetes Administrator CKA **2020**
Linux Foundation.

Scrum Agile– Certified Scrum Master **2017**
Scrum Alliance.

Technical Skills

- Cloud Environment: AWS.
- Platform Engineering: Backstage.
- Gen AI : Amazon Q CLI, Amazon Bedrock, Amazon SageMaker AI

- Orchestration: Kubernetes, Docker Swarm, Rancher.
- CI/CD Pipeline: Jenkins, GitHub Actions, GitLab CI, AWS CodePipeline.
- Serverless: SAM model, Lambda, API Gateway, DynamoDB.
- Compute: ECS, EKS, EC2, Lambda.
- Infrastructure as Code: Terraform, CloudFormation.
- Programming, Scripting & Automation: Java, Bash Scripting, Ansible.
- Artifact Management: Nexus, Bower, NPM.
- Database Management: MySQL/MariaDB, Aurora, PostgreSQL.

Language Skills

French, English.