# Mohammad Afzal

Lead Cloud Engineer | Product Development Engineer | Web Application Specialist  
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## Summary

Experienced **Lead Cloud Engineer at Technumen** with 9+ years of success in building and deploying **scalable, cloud-native web applications** across monolithic and microservice architectures. Proficient in **Kotlin**, **Java**, **Spring Boot**, and **Hibernate** for backend development, and skilled in **ReactJS** and **Angular** for dynamic front-end interfaces. Adept at designing RESTful APIs, integrating payment systems like **Stripe**, and deploying secure, high-performance solutions on **AWS**(EC2, Lambda, S3), using **Docker**, **Kubernetes**, and **Jenkins** for CI/CD automation. Strong command over **Linux system administration**, infrastructure optimization, and DevOps practices. Known for leading full-cycle ERP and SaaS product builds in both product and service environments. Active contributor on Stack Overflow (8K+ rep) and driven by a passion for clean architecture, team mentorship, and continuous learning.

## Technical Proficiencies

**Programming Languages:** Java 17, Kotlin 1.9, Python, JavaScript

**Backend Development:** Spring Boot, Ktor, Hibernate, RESTful APIs, Node.js, Kafka (Event Streaming)

**Frontend Development:** ReactJS, AngularJS, Flutter

**Database Systems:** PostgreSQL, MySQL, MongoDB, Redis, Snowflake

**Cloud Services:** AWS (EC2, RDS, S3, Lambda, Cloudwatch), Azure, Docker, Kubernetes, Terraform (Intro)

**DevOps & CI/CD:** GitHub Actions, Jenkins, Docker, Nginx, Git, Linux CLI

**MLOps & Data Science:** MLflow, Scikit-learn, JupyterLab, Pandas

**Testing and Automation:** JUnit, Selenium, Cucumber, PyTest

## Experience

### Lead Cloud Engineer, Technumen | 2024 - Present

* Designed and developed a **Spring Boot SDK** to serve AI-powered insurance claim inferences through a scalable API interface for external clients, including Sapient integration.
* Led development of **OneRule SDK API layer**, enabling third-party systems to consume inference results with high reliability and low latency.
* Managed cross-team architecture design and delivery timelines in coordination with partner systems such as **Sapient**, ensuring seamless integration and compliance with insurance industry standards.
* Migrated multiple repositories from **Bitbucket to GitHub**, integrating **GitHub Actions** for CI/CD automation, security scanning, and environment promotion workflows.
* Integrated key enterprise systems including **Microsoft Graph API** (calendar & email automation), **Slack bots**, **email pipelines**, **S3**, and **OpenAI APIs** to streamline internal processes and external communications.
* Actively contributed to **code reviews, architectural decisions, and developer mentoring**, promoting Kotlin best practices and accelerating team productivity.
* Introduced new tooling and process enhancements across code quality checks, dependency management, and observability practices, improving developer velocity and system reliability.

### Product Development Engineer, Calibo | 2020 - 2023

* Led the development of scalable microservices using **Kotlin** with **Spring Boot** and **Hibernate**, leveraging coroutines for efficient async workflows.
* Collaborate with cross-functional teams to understand requirements and deliver high-quality features to production.
* Architect and implement DevOps practices, leveraging Docker, Kubernetes, and Jenkins for continuous integration and deployment.
* Utilize AWS services such as EC2, RDS, and Sagemaker to build robust and scalable cloud solutions.
* Work closely with stakeholders to gather feedback, optimize application performance, and ensure smooth product delivery.

### Senior Associate, Nagarro | 2019 - 2020

* Led the digital transformation of project development by developing web applications using **Kotlin** + **Spring Boot**, **RabbitMQ**, **Angular 8**, and **Postgresql**.
* Collaborated with a team of engineers to design and implement scalable microservices architecture.
* Ensured high code quality and adherence to best practices through code reviews and automated testing.
* Actively participated in agile development processes, including sprint planning, daily stand-ups, and retrospective meetings.

### Senior Software Engineer, Enbraun | 2015 - 2019

* Developed multi-user resource management and scheduling software using JavaEE, AngularJS, and Restful services.
* Designed and implemented RESTful APIs for seamless integration with external systems.
* Collaborated with clients to gather requirements, provide technical guidance, and deliver custom solutions.
* Led the migration of legacy applications to modern technologies, resulting in improved performance and user experience.

### Freelancer | Before 2015

* Successfully completed various freelance projects, including web application development and customization based on client requirements.
* Collaborated closely with clients to understand their needs and deliver tailored solutions within agreed timelines.

## Project Profile

### OneRule SDK – AI Inference Platform for Insurance Claims

An enterprise-grade SDK built to simplify and standardize the use of Sapient's AI-driven insurance claim inference engine. The SDK acted as a middleware abstraction layer, enabling client systems to integrate seamlessly without dealing with data preparation, complex dependencies, or cloud-specific configurations.

Key Contributions:

* Designed and developed the core **OneRule SDK** in **Java 17 + Spring Boot**, providing a clean and reliable interface to invoke Sapient inferences with minimal setup.
* Created reusable starter kits for rapid integration including **Spring Boot Starters**, **Kubernetes Helm charts**, and EKS-ready deployment templates.
* Developed cloud-native automation pipelines using **AWS Lambda**, **Step Functions**, **S3**, and **CloudWatch**, enabling dependency updates, versioning, and environment validation without manual intervention.
* Abstracted complexities such as **data cleaning**, **data validation**, and **third-party dependency resolution**, delivering a plug-and-play experience for SDK consumers.
* Enabled multi-tenant compatibility and extensibility for internal teams and client partners to build on top of OneRule without deep platform knowledge.
* Contributed to comprehensive developer documentation, onboarding guides, and internal tooling to accelerate adoption and reduce time-to-first-inference.
* Collaborated cross-functionally to evolve the SDK architecture, enforce consistent versioning strategies, and support production rollouts with monitoring and logging best practices.

### LAZSA – Product Platform-as-a-Service

Industry-first Product Platform-as-a-Service (pPaaS) to redefine digital innovation and drive competitive advantage through digital business. The platform provides a comprehensive set of tools and technology stack to efficiently manage, define, design, develop, and deploy phases of product development.

Key Contributions:

* Led a team in the development and implementation of core features, ensuring successful delivery to the production environment.
* Collaborated with stakeholders to understand requirements and made architectural decisions to ensure the platform's scalability and performance.
* Implemented **Kotlin**, **Spring Boot**, **AWS services**, **Kafka**, **ReactJS**, Docker, Kubernetes, Jenkins, **Sagemaker**, **MLFlow**, Kedro, and **ELK** for seamless development and deployment.

### DiPEC (Digitalized Project Execution)

Web application created to digitalize project development, utilized by engineers of Siemens. The project involved team leadership and development from the initial stages. The application was developed in a microservices architecture, ensuring scalability.

Key Contributions:

* Led a team in the development of features and functionality, meeting project deadlines and ensuring high code quality.
* Implemented Spring Boot, Kafka, **Angular 8**, **Postgresql**, and **Material UI** to deliver a robust and user-friendly application.

### eResource Scheduler

Enbraun's eResource Scheduler is a multi-user feature-rich software for resource management and scheduling. The application enables organizations to efficiently schedule, plan, and manage employees, equipment, and other resources.

Key Contributions:

* Developed RESTful services, utilizing AngularJS, Bootstrap, OAuth2, and JavaEE to create a comprehensive resource management solution.
* Collaborated with clients to gather requirements, design customizations, and provide technical guidance.
* Implemented user-defined fields, booking charts, time sheets, and other advanced features to enhance resource management capabilities.

### Abho Costing Sheet

Web application designed to manage costing in the fashion designing industry. The application enables management of clients, fabrics, labor costs, dyeing, overheads, and provides precise cost analysis.

Key Contributions:

* Developed RESTful services using AngularJS, Bootstrap, Servlets, Java EE, and Wildfly to create a user-friendly and efficient costing management application.
* Implemented role-based access control to ensure appropriate authorization for different application components.

## Education Detail

**Master of Science** in Data Science from Liverpool John Moores University

**Post Graduate Diploma** in Data Science from IIITB Bangalore

**Bachelor of Technology** in Computer Science from Uttarakhand Technical University

**Higher Secondary School** from Modern School Rishikesh (CISCE)

**High School** from Modern School Rishikesh (CISCE)