

Muhammad Zohaib

Junior Backend Developer | Java Spring Boot | AWS Cloud | Docker | DevOps

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github.com/zohaib-dev-14 · linkedin.com/in/muhammadzohaib14 · researchpaper.site

EDUCATION

University of Mianwali (UMW) — BS Software Engineering

Oct 2023 – Present

Semester 7 · CGPA: 3.80 / 4.00 (through Semester 6)

TECHNICAL SKILLS

- Languages & Frameworks: Java, Spring Boot, Spring Security, Spring Data JPA, Hibernate
- Cloud & Infrastructure: AWS EC2, AWS RDS, AWS S3, AWS ElastiCache, Docker, Docker Compose, Nginx, GitHub Actions
- Databases & Cache: PostgreSQL, Redis — caching, OTP rate-limiting, token blacklisting, atomic ops
- Security & APIs: JWT (access + refresh rotation), RBAC, BCrypt, OTP verification, HTTPS/SSL, Swagger / OpenAPI v3, Postman
- Email & Tools: SendGrid (SPF / DKIM domain auth), Git, Maven, IntelliJ IDEA, Linux, Jira
- CS Fundamentals: Data Structures & Algorithms, OOP, MVC Architecture, Operating Systems, Computer Networks, DBMS

PROJECTS

Cloud-Native Research Paper Management System · github.com/zohaib-dev-14/research-paper-system-springboot · researchpaper.site (Live APIs)

Java Spring Boot · PostgreSQL · Redis · AWS EC2 / RDS / S3 / ElastiCache · Docker · Nginx · GitHub Actions · SendGrid · MinIO

- Architected a 4-Role production system with complete REST API for research paper lifecycle (SUBMITTED → UNDER_REVIEW → ACCEPTED / REJECTED / REVISION) with Admin, Researcher, Reviewer, and Reader role isolation via Spring Security @PreAuthorize.
- Implemented stateless JWT auth with refresh token rotation — access tokens verified in-memory (no DB hit); Redis used for OTP rate-limiting with atomic setIfAbsent() to prevent race conditions under concurrent load.
- Deployed on AWS EC2 with Let's Encrypt SSL; Nginx configured as reverse proxy with TLSv1.2/1.3 hardening and HTTP→HTTPS 301 redirect; AWS RDS (PostgreSQL) + ElastiCache (Redis) as fully managed cloud backends.
- CI/CD pipeline via GitHub Actions: Maven build → Trivy vulnerability scan → Docker image with SHA tag → push to Docker Hub → SSH deploy to EC2. Images built in Actions (not on server) to preserve EC2 memory.
- Integrated AWS S3 + MinIO for dual-mode object storage; SendGrid with custom domain authentication (SPF/DKIM) for transactional OTP emails; 30+ endpoints documented via Swagger / OpenAPI v3 with Postman collection.

ReveilleX — Smart Alarm Backend · github.com/zohaib-dev-14/alarm-app-v1

Java Spring Boot · PostgreSQL · Redis · Docker Compose · JWT · Spring Security

- Built a secure RESTful backend for a smart alarm system featuring JWT authentication, refresh token rotation, and Spring Security filter chain for strict route protection.
- Designed server-side challenge validation engine supporting math and QR-based dismissal workflows; Redis for session token management and fast lookup; PostgreSQL for alarm/user persistence via Spring Data JPA.
- Implemented subscription-tier logic with role-based feature access; containerized full stack with Docker Compose for environment-consistent local and staging deployments.
- Diagnosed and resolved Jackson serialization version conflicts and duplicate Spring Security filter registration caused by transitive dependency clashes — fixed via explicit version pinning in pom.xml.

CERTIFICATIONS

Amazon Web Services (AWS) — EmpRadar | empradar.ai/certificates/7581b697

Jun 2026

CI/CD — EmpRadar | empradar.ai/certificates/a0f75413

Jun 2026

Git — EmpRadar | empradar.ai/certificates/37f5b102

Jun 2026

Get the Most Out of Jira — Atlassian University

Feb 2026

Sprint planning, backlog management, epics, versions, user story workflows.

CURRENTLY EXPLORING

- Apache Kafka — async event-driven architecture for microservice decoupling · Kubernetes — container orchestration · RAG & semantic search with pgvector