AKHIL NAKKA

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SUMMARY

Software Developer with proven experience in building full-stack web applications, cloud-native microservices, and secure RESTful APIs using Java, Spring Boot, React, and .NET. Skilled in deploying scalable systems on AWS using Docker, Kubernetes, and CI/CD pipelines. Experienced in developing AI-integrated solutions, implementing clean architecture, and contributing to high-impact engineering teams using Agile methodologies.

TECHNICAL SKILLS

- **Programming Languages**: Java, Python, C, C++, JavaScript, HTML, CSS, C#, .NET Framework 4.8
- **Frontend Technologies**: HTML5, CSS3, Bootstrap, Tailwind CSS, ReactJS
- **Backend and Database**: RESTful APIs, GraphQL, Microservices Architecture, Oracle, PostgreSQL, MongoDB, Redis, Apache Kafka
- **DevOps and Cloud Tools**: Docker, Kubernetes, Jenkins, GitHub Actions, GitLab CI, AWS (ECS, Lambda, S3, Dynamo DB), OAuth 2.0, JWT, Git

WORK EXPERIENCE

George Mason University   **Fairfax, VA**
Software Engineer, Learning Space Design   03/2024 - Present

- Engineered and enhanced a campus-wide facilities management platform using C#, .NET Framework 4.8, and JavaScript, streamlining classroom and equipment data for 500+ users.
- Integrated real-time survey modules to collect user feedback, enabling data-driven infrastructure planning and resource optimization.

MAQ Software   **Telangana, India**
Software Engineer 1   09/2022 - 07/2023

- Architected cloud-native microservices for a high-volume finance analytics platform using Spring Boot, integrating OAuth2, JWT, and Spring Security to enable RBAC across a distributed system serving 10,000+ users.
- Improved analytics system throughput by 40% by optimizing PostgreSQL queries and introducing Redis caching for high-traffic endpoints.
- Developed AWS Lambda functions with SQS, CloudWatch Events, and Batch Jobs, enabling asynchronous event processing and reducing operational overhead by 50%.
- Automated CI/CD pipelines using Jenkins, Maven, and Docker, orchestrated container deployments on AWS EC2 with S3 storage integration.
- Implemented Resilience4j (Circuit Breaker, Retry) for service reliability, and documented all services using OpenAPI, enhancing collaboration across frontend and QA teams.

MAQ Software   **Telangana, India**
Associate Software Engineer   09/2021 - 09/2022

- Designed backend components using Java 8, Spring MVC, and Hibernate to support financial reporting workflows, following clean architecture principles and promoting service modularity.
- Delivered 75%+ test coverage through unit/integration testing with JUnit 5, Mockito, and Wire Mock, reducing post-deployment issues by 35%.
- Created and maintained API contracts with Swagger/OpenAPI and integrated version-controlled build pipelines with Git and Maven in a Dockerized CI/CD environment.

PROJECTS

Location-Based Task Management System – React.js, Node.js, Express, MongoDB, Leaflet.js, OpenAI GPT-3.5, Tailwind CSS

- Engineered a full-stack MERN application using Leaflet.js, MongoDB geospatial queries, and OpenAI GPT-3.5 to automate task assignment and verification, boosting completion rates by 35%.

Enterprise-Grade Microservices Backend – Spring Boot 3, Kafka, MongoDB, MySQL, Keycloak, Docker, Flyway, Nginx

- Orchestrated and delivered a scalable distributed Spring Boot 3 microservices based e-commerce backend using MongoDB/MySQL relational databases, containerized with Docker, used Flyway for relational DB migrations, and set up Nginx as a secure API reverse proxy in a distributed system environment.

Backend Microservices Deployment on AWS – Spring Boot, Kubernetes, Docker, AWS EC2, AWS RDS, Jenkins

- Implemented a scalable Spring Boot-based student portal to Kubernetes clusters on AWS EC2 using Docker, integrated Jenkins for automated CI/CD, and used AWS RDS (MySQL) to persist student and course data, reducing manual deployment effort by 60%.

Backend API & Android Client Mobile App – Java, JSP, Android, REST API, MySQL

- Architected a 3-tier employee recognition system where managers could reward and track achievements via a Java/JSP web portal with MySQL backend and built an Android client using REST APIs for real-time interaction, enhancing engagement across 10K+ records.

EDUCATION

George Mason University   **Fairfax, Virginia**
Master of Science in Computer Science, **CGPA:** 3.63   08/2023 - 05/2025
Jawaharlal Nehru Technological University   **Hyderabad, India**
Bachelor of Technology in Computer Science Engineering, **CGPA**: 3.42   07/2018 - 06/2022

CERTIFICATIONS

- **AWS Certified Cloud Practitioner –** Amazon Web Services (AWS)
- **AWS Certified Solutions Architect – Associate –** Amazon Web Services (AWS)
- **JPMorgan Chase Software Engineering Virtual Experience** – Forage
- **SQL (Intermediate)** – HackerRank
- **SQL (Basic)** – HackerRank