

Venkata Phani Aditya Nutalapati

nvp9866@gmail.com | (240) 854-8211 | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

SUMMARY

Software Engineer with 3+ years of experience designing scalable backend systems using Java, Spring Boot, and AWS. Skilled in building RESTful APIs, optimizing database performance, and deploying in the cloud. AWS Certified Developer – Associate and Cloud Practitioner.

PROFESSIONAL EXPERIENCE

Graduate Assistant, University of Maryland | College Park, MD

Sept 2023 - May 2025

- Designed and implemented a modular Inventory Management System using Java, Spring Boot and React, replacing excel-based tracking and reducing stock discrepancies by 60%.
- Addressed performance bottlenecks by restructuring database queries and minimizing repeated fetch operations; improved API responsiveness by 30% through backend optimization with Spring JPA and Hibernate.
- Developed a user-friendly React frontend with Redux for the analytics module, enabling staff to generate usage reports and identify top-selling items, resulting in a 40% improvement in performance efficiency by minimizing backend API calls.

Software Engineer, PayPal (via Infosys) | Hyderabad, India

Nov 2020 - Jul 2023

- Contributed to the development of a secure and scalable data migration pipeline for migrating sensitive user data between environments, involving 1 million+ records across 55+ database tables.
- Built a REST API using Java Spring Boot to process incoming payload for data migration, reducing invalid requests by 40% through strict validation of content-type, payload size, structure and data type.
- Improved batch performance by 60% by implementing Java multithreading, enabling parallel processing of customer data and reducing runtime from 5 minutes to 2 minutes.
- Applied the Factory Design Pattern and Dependency Inversion Principle to modularize backend services, reducing code complexity and enabling faster onboarding and feature development in a team environment.
- Maintained high code quality with 95% test coverage, ensuring effective bug resolution, by writing comprehensive unit tests in JUnit and Mockito and functional tests in TestNG.
- Secured migration of 1M+ sensitive user records by integrating a polymorphic encryption-decryption service in Java Spring Boot, reducing processing errors by 35% and enabling dynamic algorithm selection to meet compliance and scalability requirements.

Software Engineer Intern, Attra Infotech | Bangalore, India

Sept 2020 - Oct 2020

- Programmed a banking application with full CRUD functionality, simulating account creation, updates, deletions, and listing using Java, Spring Boot and Spring JPA.
- Achieved 100% API test coverage and ensured consistent response times under 200ms for all account-related operations in a mock environment.

Software Engineer Intern, Virtusa | Hyderabad, India

May 2019 - Jul 2019

- Developed a Facilities Assistant Chatbot to automate ticket generation for room bookings and meeting requests, streamlining internal facilities management.
- Designed and implemented the chatbot frontend using JavaScript, React, HTML, and CSS, delivering an intuitive conversational UI for users.

PROJECTS

Corporate E-Learning Application | Java, Spring Boot, Spring JPA, PostgreSQL, AWS, React

Nov 2024

- Spearheaded development of a full-stack e-learning platform, leading requirement analysis, architectural design, database schema creation and setting the foundation for a scalable and efficient platform.
- Built a CI/CD pipeline with GitHub Actions to auto-deploy the application on AWS EC2 on each commit, streamlining delivery.

Doctor Appointment Booking Application | Java, Spring Boot, JPA, Hibernate, AWS, Kafka, SQL.

Sept 2022

- Engineered a microservices-based doctor appointment booking platform with event-driven architecture, enabling seamless appointment scheduling, notifications, and role-based user access.
- Integrated asynchronous communication between microservices using Apache Kafka, improving system scalability and ensuring reliable message delivery across services.

TECHNICAL SKILLS

Programming Languages & Frameworks: Java, Python, Spring Boot, Hibernate, Spring JPA, React, JavaScript, Typescript, HTML, CSS, Apache Kafka, JUnit, Mockito, REST API.

Database: SQL, PostgreSQL, MySQL, NoSQL, MongoDB.

Tools: Git, Jenkins, JIRA, Postman, MAVEN, GitHub, Confluence, JSON, XML, Docker, IntelliJ, VS Code, Jmeter.

Cloud Technologies: AWS (EC2, Lambda, S3, API Gateway, SQS, SNS, RDS, CloudWatch).

Development Practices: CI/CD, Automation, TDD, Design Patterns, Agile, SCRUM, SDLC, SOLID, and Code Reviews.

Certifications: AWS Certified Developer - Associate, AWS Certified Cloud Practitioner.

EDUCATION

Masters in Software Engineering - University of Maryland - College Park | 3.89/4.0

Aug 2023 - May 2025

Bachelors in Computer Science- GITAM University | 8.61/10

Jun 2016 - May 2020

Relevant Coursework: Distributed Systems, Operating Systems, Software Design, Database Management, Object Oriented Programming