# Venkata Pavan Kalyan Kumar Pinniboina

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# Summary

Passionate Software Engineer with over 4 years of experience excelling in full-stack development. Adept at collaborative problem-solving and dedicated to crafting innovative, scalable solutions for project success. Proven expertise in building microservices architectures and optimizing system performance, with a strong focus on clean code, automation, and continuous integration to drive efficiency and reliability.

## **Education**

Master's in computer science, University of Central Missouri | Warrensburg, USA | GPA: 3.5/4

Jan 2023 – May 2024

**Courses:** Advance of Algorithms, Complier Design, Advance Operating systems, Advanced Database Systems, Big data, Machine Learning, Stat Found Data Science & AI, Software Engineer, Software Testing & Qual Assurance, Prog Found Data Science & AI.

Bachelor's in computer science, NRI Institute of Technology | Vijayawada, India | GPA: 7.38/10

Jun 2016 – Apr 2020

#### **Technical Skills**

Languages: JavaScript, TypeScript, JSX, Java, Python.

Front End: React.js, Angular, React Hooks, Context API, Functional Components.

Libraries & Frameworks: React, Spring Boot, Node.js, J2EE, Spring Cloud, Spring Security, Hibernate.

**UX Tools:** Adobe XD, Figma, Responsive Design.

Testing Tool(s): Postman, Cucumber, TestNG.

Web Technologies: HTML5, CSS3, Sass, Redux, React-router.

Databases: MySQL, MongoDB, Oracle.

Web Services: RESTful, Soap, JSON.

Cloud Platform: AWS, DevOps, Docker, Jenkins.

Version Control: GIT, GitHub.

Others: Web pack, ES Lint, Eclipse, VS code, Firebase, JIRA, Agile methodologies.

#### **Professional Experience**

## Full Stack Developer, HCL Tech

06/2024 – Present | Remote, USA

- Designed and developed a high-performance front-end using React and Redux, optimizing page load times by 30% through state management and code refactoring, significantly improving user experience (UX) and reducing bounce rates.
- Engineered a microservices-based architecture with Java (Spring Boot), J2EE, and Spring Cloud, enabling modular service management, independent deployments, and horizontal scaling, while integrating API Gateway and circuit breaker patterns for enhanced fault tolerance and resilience.
- Developed RESTful APIs for seamless integration between microservices and external systems, using Swagger for documentation and Postman for thorough testing, ensuring smooth communication and service across the platform.
- Optimized data persistence by implementing **Hibernate ORM** and **MySQL**, improving query performance by 30% while ensuring transactional consistency and high availability across distributed services.
- Enhanced application scalability and performance by integrating **Redis** for caching and **MongoDB** for unstructured data storage, supporting 30% more concurrent users with minimal impact on system performance.
- Implemented **Docker** for containerized microservices and automated **CI/CD pipelines** using **Jenkins** and **GitLab CI**, ensuring zero downtime and continuous delivery.

#### **Software Engineer**, Tata Consultancy Service

10/2019 – 12/2022 | Hyderabad, India

• Designed and implemented microservices-based OSS solutions using Java 8/11, Spring Boot, and Kubernetes, improving scalability, performance, and fault tolerance in Telstra's cloud-native infrastructure.

- Engineered a high-performance messaging system with Apache Kafka and Spring Boot, facilitating bidirectional
  communication between microservices and external systems, reducing message latency and enhancing real-time
  data flow.
- Integrated robust security mechanisms using **Spring Security**, **OAuth2**, and **JWT**, ensuring secure API access and data protection across the platform, in compliance with enterprise-level security protocols.
- Automated an end-to-end testing framework with **Cucumber**, **TestNG**, and **Spring Boot**, cutting testing time by 70%, and collaborated using **Jenkins**, **Docker**, and **Git** to streamline CI/CD and improve software quality.
- Built and integrated a **Java-based email notification system** within the order orchestration pipeline, automating jeopardy order alerts and enhancing operational efficiency and customer satisfaction.
- Developed and optimized **RESTful APIs** to support seamless data exchange between BSS/OSS layers, improving integration efficiency with third-party systems and reducing manual intervention by 60%.
- Leveraged **Prometheus** and **Grafana** to implement real-time monitoring and alerting for critical microservices, enabling proactive issue detection and reducing system downtime by 40%.
- Refactored legacy monolithic components into containerized microservices using **Docker** and **Kubernetes**, reducing
  deployment time and improving system modularity for better maintainability and scalability.
- Helped senior workers in debugging, fixing, and testing the code to improve website performance and user experience by **25%**.

# **Projects**

# Trading Platform (Java, React.js, AWS, Tailwind CSS, Typescript)

- Developed a full-stack crypto currency trading app from scratch using Spring Boot, React, Tailwind CSS, enabling
  users to buy/ sell 16,000+ crypto currencies using real-time market data, load funds, withdraw, and transfer walletto-wallet
- Implemented 40+ API endpoints and interactive price history graphs with historical data access for up to 365 days.
- Implemented Spring Security for authentication and authorization (role-based access controls), enhancing application security.
- Designed comprehensive user features include 2 payment gateways. Al chatbot integration and robust 2FA authentication.
- Leveraged Hibernate/JPA for ORM while utilizing raw SQL queries to optimize database performance and reduce ORM overhead.
- Implemented automated CI/CD pipelines using Jenkins to deploy applications on AWS and Kubernetes infrastructure.

# Multi-Vendor E-commerce Platform (Java, React.js, AWS, Tailwind CSS, Typescript)

- Led a team of 4 to launch a multi-vendor e-commerce platform in 4 months, using React, Spring Boot, enabling multi-vendor operations with robust features for customers, sellers, and administrators, supporting 50,000+ products and real-time analytics.
- Built advanced customer features, like AI chatbot, product filtering, shopping with coupons, and real-time order tracking, JWT authentication, Spring Security for role-based access control, and integrating 2 payment gateways.
- Improved backend API performance by implementing caching using Redis and optimizing SQL queries for large datasets.
- Collaborated with cross-functional teams to design responsive user interfaces using ReactJS and Tailwind CSS frameworks, providing real-time analytics for earning graphs with data spanning up to the last 12 months.