

Vamsi Makke

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PROFESSIONAL SUMMARY

Results-driven Software Engineer with strong expertise in **Java**, **Python**, and **Cloud Infrastructure (AWS)**. Experienced in architecting scalable **Microservices**, building distributed systems, and optimizing full-stack web applications. Proven track record of improving search latency from 1.2s to 450ms and reducing API response times from 800ms to 350ms for applications serving 50k+ active users. Adept at **LeetCode** style problem-solving (Top 4.37% globally with 1500+ problems solved) and implementing CI/CD workflows for high-availability production environments.

TECHNICAL SKILLS

Languages: Java (Core/Advanced), Python, JavaScript, SQL, Bash/Shell

Backend: Spring Boot, Node.js, Express.js, RESTful APIs, Microservices, Apache Kafka, GraphQL

Cloud & DevOps: AWS, Docker, Kubernetes, Jenkins, GitHub Actions, Terraform, Ansible

Databases & Caching: PostgreSQL, MySQL, MongoDB, Redis, Query Optimization

Web: React.js, Redux, HTML5, CSS3, Tailwind CSS, Material-UI

Core Concepts: Data Structures & Algorithms, OOP, System Design, Agile/Scrum, Distributed Systems

EDUCATION

University of Cincinnati, Cincinnati, OH

Jan 2024 – May 2025

Master of Science in Information Technology

GPA: 4.0/4.0

Vasireddy Venkatadri Institute of Technology, India

Sep 2019 – Apr 2023

Bachelor of Technology in Computer Science and Engineering

EXPERIENCE

Software Engineer | TORQ Sports, Woodland Hills, CA (Remote)

Jun 2025 – Present

- Implemented advanced search functionality with full-text indexing and relevance scoring using **PostgreSQL**, improving search latency from 1.2s to 450ms for 50k+ active users.
- Optimized complex SQL queries and database indexing, reducing API response times from 800ms to 350ms for core user flows.
- Introduced structured HTTP logging with error tracking and request tracing, processing 100k+ daily requests for better system observability.
- Resolved 8 critical backend security vulnerabilities including SQL injection and XSS attacks across the application.
- Collaborated with cross-functional teams using **Agile** methodologies to deliver high-impact features on schedule.

Graduate Researcher - Software Engineer | UC NERDS Lab (Volunteer), Cincinnati, OH

Apr 2024 – Apr 2025

- Built **Spring Boot** REST APIs for secure data submission, reducing data transfer time from 800ms to 520ms through optimized serialization.
- Implemented **Apache Kafka** for real-time event streaming, enabling scalable event-driven architecture handling 10k+ events/day.
- Integrated **Redis** caching layer, reducing MySQL query load by 40% and improving API response times from 600ms to 360ms.
- Developed React-based analytics dashboards with interactive visualizations processing 5k+ daily events.
- Maintained strict code quality through comprehensive testing and documentation, ensuring production-ready codebase.

Software Engineer Intern | Cognizant Technology Solutions, Hyderabad, India

Mar 2023 – Jul 2023

- Engineered full-stack web application using **Spring Boot**, **React**, and **MySQL** serving 1000+ concurrent users with 99.5% uptime.
- Optimized MySQL database queries and implemented connection pooling, reducing query execution time from 450ms to 290ms.
- Implemented CI/CD pipeline using **Jenkins** and **GitHub Actions**, reducing deployment time from 45 minutes to 17 minutes.
- Wrote comprehensive unit tests using JUnit and Mockito, achieving 92% code coverage across 150+ test cases.
- Collaborated with cross-functional teams in Agile environment to resolve 100+ defects, ensuring high code quality.

PROJECTS

E-Wallet Microservices Platform | Spring Boot, Kafka, Redis, MySQL, Docker

- Designed distributed microservices architecture for digital wallet with balance management and fund transfers.
- Implemented event-driven communication using **Apache Kafka** for real-time transaction processing and notifications.
- Integrated **Redis** for caching frequently accessed user data, reducing database load and improving response times.
- Containerized services using **Docker** for consistent deployment across environments.

Social Media Application | React, Node.js, Express.js, MongoDB, Material-UI

- Built full-stack social media platform with authentication, posts, comments, likes, and real-time notifications.
- Engineered RESTful APIs using **Node.js/Express** with JWT authentication and encrypted password storage.
- Developed responsive React frontend with Material-UI, providing seamless user experience across devices.
- Implemented efficient MongoDB schemas with indexing for optimized query performance.

ML-Powered Sentiment Analyzer | Python, Machine Learning, NLP, Scikit-learn

- Developed sentiment analysis tool using Python and NLP techniques for text classification.
- Implemented machine learning models using **Scikit-learn** for accurate sentiment prediction.

- Designed data preprocessing pipeline for text cleaning, tokenization, and feature extraction.
 - Achieved high classification accuracy through model tuning and cross-validation techniques.
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ACHIEVEMENTS

- **LeetCode - Top 4.37%:** Solved **1400+** **problems**, demonstrating mastery of Data Structures, Algorithms, and Dynamic Programming.
- **Third Place - Virtusa Neural Hack S6:** Competed among 1000+ participants in national-level hackathon.
- **Perfect GPA:** Maintained 4.0/4.0 GPA throughout Master's program at University of Cincinnati.
- **System Design:** Successfully designed and deployed distributed systems handling high-throughput real-time data with 99.5%+ uptime.