Vamsi Makke

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PROFESSIONAL SUMMARY

Software Engineer specializing in **scalable distributed systems**, backend performance, and **full-stack development** across Java, Python, and JavaScript. Delivered **50% faster performance** and **70% higher availability** across production environments serving 100K+ users. Strong foundation in **data structures and algorithms** (Top 7% LeetCode globally). Adept at designing, deploying, and maintaining systems on Unix/Linux, and excited to build technology that scales at Google.

SKILLS

Languages: Java, Python, JavaScript, SQL, Bash
Systems: Unix/Linux, distributed systems, microservices, Kafka, Redis, Docker, Kubernetes
Web: Spring Boot, Node.js, React, REST APIs, Flask
Cloud & DevOps: AWS (EC2, S3, Lambda), CI/CD, GitHub Actions, Jenkins
Databases: MySQL, PostgreSQL, MongoDB, query optimization, indexing
Domains: Machine learning (TensorFlow), NLP, information retrieval, OAuth 2.0 security, accessibility (WCAG 2.1)

EDUCATION

University of Cincinnati, Cincinnati, OH — Jan 2024 – May 2025
Master of Science in Information Technology — **GPA: 4.0/4.0**
Relevant Coursework: Cloud & Storage Systems, Advanced Algorithms, Software Engineering, Machine Learning, Natural Language Processing, Cybersecurity

Vasireddy Venkatadri Institute of Technology, Guntur, India — Sep 2019 – Apr 2023
Bachelor of Technology in Computer Science & Engineering
Relevant Coursework: Data Structures & Algorithms, Distributed Systems, Operating Systems, DBMS, Linux System Programming

WORK EXPERIENCE

Software Engineering Intern | TORQ Sports, Woodland Hills, CA — Jun 2025 – Present
- Built and deployed a signal-based **ranking feed system** serving 10K+ daily users with sub-200ms p95 latency, driving **50% increase in engagement**.
- Optimized SQL queries and added compound indexes to **cut execution time by 55%** and stabilize throughput under peak load.
- Introduced Redis caching and rate limiting to **reduce API latency 30%** while improving server efficiency.
- Delivered WCAG 2.1-compliant user flows, boosting platform accessibility and usability for keyboard and screen reader users.

Software Engineer Intern | NERDS, University of Cincinnati, Cincinnati, OH — Apr 2024 – Apr 2025
- Deployed containerized Spring Boot/Python microservices on AWS EC2 with automated health checks and blue-green rollbacks, improving uptime by **70%**.
- Built async data pipelines using Kafka and Redis, **cutting transfer latency 30%** and boosting event reliability to 99.9%.
- Streamlined CI/CD with GitHub Actions and Jenkins, running 500+ automated tests and maintaining 85%+ coverage per release.

Software Engineer Intern | Cognizant Technology Solutions, Hyderabad, India — Dec 2022 – Dec 2023
- Developed full-stack features using Spring Boot, React, and MySQL to drive **30% higher user engagement**.
- Improved database performance by **35%** through query tuning, indexing, and join optimization.
- Automated log analysis and system health checks with Python and Bash on Linux, increasing observability by **45%**.

PROJECTS

E-Wallet Distributed System | Java, Spring Boot, Kafka, Redis, MySQL, Docker
- Designed scalable microservices with idempotent REST APIs and Kafka message queues, improving throughput by **40%**.
- Added Redis caching and optimized database queries to **cut latency 30%** for real-time financial transactions.

ML-Powered Sentiment Analyzer | Python, TensorFlow, Flask, AWS EC2
- Trained LSTM-based NLP model on 150K+ tweets, reaching **91% accuracy**.
- Deployed scalable Flask inference API with sub-50ms p99 latency and strong request validation.

Social Media Platform | Node.js, React, MongoDB
- Optimized MongoDB queries and pagination to **reduce p95 latency 40%** under 5K concurrent users.
- Added JWT-based authentication, CSRF protection, and detailed API documentation.

ACHIEVEMENTS & LEADERSHIP

- **LeetCode Top 7% Globally**: Solved 1300+ algorithmic problems; 1800+ contest rating.
- **Virtusa Neural Hack S6 Hackathon Winner-III**: Ranked Top 3 among 1,000+ participants.
- **Captain, VVIT Soccer Team**: Led team to 3 finals, building leadership and coordination skills.
- **Fast Learner**: Self-taught Kubernetes and Kafka in 3 weeks for production deployment.