VIKAS NERIYANURU

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EDUCATION

Master of Science in Computer Science   **Boston, MA**
Northeastern University, Khoury College of Computer Sciences   **Jan 2025 – May 2027**
Relevant Coursework: Programming Design Paradigm, DBMS, Algorithms, Cloud Computing, Web Development

Bachelor of Technology in Computer Science and Engineering   **Chennai, India**
SRM Institute of Science and Technology   **Jul 2017 – Jun 2021**
Relevant Coursework: Data Structures & Algorithms, OOP, Operating Systems, Computer Networks, Software Engineering

SKILLS

Languages	Java, Python, C/C++, JavaScript, TypeScript, SQL, Bash
Frameworks	Spring Boot, React, Node.js, Express, Next.js, Flask, Django, JUnit, Mockito
Cloud / DevOps	AWS (EC2, S3, RDS, Lambda, CloudFormation, CloudWatch), Docker, Kubernetes, Jenkins, GitHub Actions, CI/CD
Databases	MySQL, PostgreSQL, MongoDB, Redis
Data / ML	Pandas, NumPy, scikit-learn, TensorFlow, OpenCV
Tools & Practices	Git, Linux, VS Code, IntelliJ, Agile/Scrum, TDD, Microservices, System Design, Code Review
Certifications	AWS Academy Graduate – Cloud Architecting & Cloud Foundations

EXPERIENCE

Jio Platforms Limited | *Software Development Engineer* | *Navi Mumbai, India*   **Aug 2021 – Dec 2023**
- Built enterprise web platforms serving **400,000+ employees** using React, Angular, and Node.js microservices; reduced manual processing by **40%** through workflow automation and intelligent form validation across distributed systems.
- Designed and deployed scalable RESTful microservices handling **50,000+ requests/day** with MongoDB/MySQL; improved query performance by **25%** via strategic indexing, connection pooling, and Redis caching; implemented circuit breakers for fault tolerance.
- Developed geo-targeted alert notification system with event-based scheduling, retry queues, and delivery tracking using message queues; reduced manual intervention during regional campaigns by **60%** while ensuring delivery SLA compliance.
- Implemented CloudWatch monitoring dashboards and automated alerting for production systems; participated in on-call rotation, resolving critical incidents with <**15min response time** using structured logging and distributed tracing.
- Conducted **100+ code reviews** focusing on performance, security, and maintainability; mentored 3 junior engineers on best practices for scalable microservices and cloud-native architectures.

Inspectinity | *Software Developer Intern* | *Remote*   **Jan 2021 – Apr 2021**
- Built modular UI components and dashboards in React with Node.js/Express backend; improved render performance by **30%** through code splitting and lazy loading; implemented JWT-based authentication with reusable data-fetch layers.

Aspire Vision Tech | *Cloud Architect Intern* | *Bengaluru, India*   **May 2019 – Jul 2019**
- Migrated full-stack e-commerce application to AWS (EC2, S3, Route53); implemented Elastic Load Balancer and Auto Scaling Groups for high availability, reducing downtime by **20%** under variable traffic.

Verzeo | *ML Project Intern* | *Chennai, India*   **Dec 2018 – Jan 2019**
- Trained text-classification models (scikit-learn); improved F1 score by **15%** through feature engineering, hyperparameter tuning, and cross-validation with Logistic Regression/Naive Bayes/SVM algorithms.

SELECTED PROJECTS

Calendar Application | *Java, Swing, MVC/SOLID, JUnit*
- Built Google Calendar-style desktop app with GUI/CLI/headless interfaces supporting single, recurring, multi-day, and all-day events; implemented **O(log n) conflict detection** using interval trees for efficient scheduling of **10,000+ events**.
- Designed using MVC architecture with Strategy and Command design patterns; achieved **90%+ test coverage** using JUnit and TDD principles with comprehensive unit and integration tests.
- Enabled CSV/ICS import/export with cross-calendar copy and skip-on-conflict logic; optimized month-view refresh to <**100ms** through efficient data structures and caching strategies.

ExpenseShare — Group Expense Tracker | *React, Node.js/Express, MySQL, REST*
- Developed full-stack expense-sharing app with real-time updates and intelligent split validations using Redux state management; supported **concurrent access for 100+ users** with optimistic UI updates.
- Designed normalized MySQL schema with stored procedures and triggers for ACID-compliant automated balance recalculation; implemented database indexing for sub-second query performance.
- Built idempotent REST APIs with **P95 latency <200ms under 1,000 concurrent users**; implemented comprehensive error handling, input validation, and rate limiting for production readiness.

AWS Cloud Architecting Capstone | *AWS EC2, RDS Multi-AZ, ALB, Auto Scaling, Secrets Manager*
- Deployed highly available two-AZ web architecture with Application Load Balancer, Auto Scaling Groups, and Multi-AZ RDS for fault tolerance; configured health checks and automated failover mechanisms.
- Implemented VPC isolation with public/private subnets, NAT Gateway, and AWS Secrets Manager for secure credential management; validated **zero-downtime resilience** through simulated EC2 and RDS fail-overs with automated recovery.

Autonomous Fire Detection Robot | *ROS, Jetson Nano, OpenCV/CNN, LIDAR/SLAM*
- Designed indoor fire-detection robot integrating computer vision, SLAM navigation, and sensor fusion with LIDAR for autonomous movement; trained CNN on RGB/thermal data achieving **92% detection accuracy**.
- Implemented real-time MQTT alerting system with pub-sub architecture for distributed notifications; published research at international conference.