

Kishore Muchintala

Senior Software Developer

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Professional Summary

- Results-driven Senior Software Engineer with 6+ years of experience in designing scalable, secure, and enterprise-grade distributed systems.
- Designed and built modern web applications utilizing ReactJS, Next.js, Redux, and modular JavaScript for improved usability and performance.
- Developed backend services using Node.js, ExpressJS, NestJS, and ASP.Net with clean RESTful and GraphQL APIs for data communication.
- Developed responsive, accessible SPAs with HTML5, CSS3, Bootstrap, SASS, and JavaScript frameworks, making them ADA compliant and cross-device compatible.
- Created high-performance UIs using Angular, Vue.js, and Ag-Grid, making use of design systems such as Angular Material and sophisticated state management using Redux, RXJS, and NGRX.
- Experienced in cloud-native development on Azure (App Services, Functions, SQL) and AWS (Lambda, EC2, S3, CloudFormation) for resilient and fault-tolerant applications.
- Created and used infrastructure as code with Terraform and AWS CloudFormation to support reproducible multi-environment provisioning.
- Designed and developed scalable microservices architectures using Node.js and Spring Boot, facilitating modular, loosely coupled services with reusable patterns.
- Engineered event-driven systems using Kafka, RabbitMQ, and service orchestration in Kubernetes and Dockerized environments.
- Implemented secure authentication flows using JWT tokens, allowing secure user access and API communication with refresh and ID token mechanisms.
- Designed end-to-end applications using MERN and MEAN stacks with robust server-side features and responsive frontends inside client-side portals.
- Developed B2C web stores with complete payment gateway integration, handling end-to-end system functionality from user login to order processing.
- Strong grasp of object-oriented design principles and patterns such as Singleton, Factory, and MVC to construct clean, maintainable structures.
- Hands-on experience with relational (Oracle, PostgreSQL, MySQL) and NoSQL (MongoDB, Cassandra) databases with emphasis on indexing and query optimization.
- Developed enterprise-level APIs and financial services to serve markets like payment processing, billing systems, and card issuance that are low in latency and high in performance.
- Developed and maintained CI/CD pipelines using Azure DevOps, Jenkins, GitHub, TeamCity with automated testing and security gates.
- Performed rigorous unit and E2E testing with Jest, Cypress, Jasmine, along with quality tool integration such as SonarQube and Checkmarx.
- Monitored app health with ELK Stack, Splunk, CloudWatch, and established alerting for real-time problem triage and uptime assurance.
- Implemented solutions using Agile frameworks (Scrum/Kanban), conducting sprints, performing stand-ups, and working closely with stakeholders.
- Led DevOps adoption in teams, bringing in automated testing, version control hygiene using Git, and CI/CD-first deployment culture.
- Installed and operated enterprise applications on Tomcat and WebLogic servers with Unix-based system administration and performance tuning.
- Deployed Azure Function Apps and AWS ECS clusters for serverless deployment and managed container workloads at scale.
- Experienced in writing complex SQL queries, procedures, and schema migrations to back end systems and business reporting.

- Designed efficient, normalized schemas for transactional data flows, ensuring reliability, ACID compliance, and reduced system overhead.
- Known for delivering well-documented, secure, scalable, and production-ready code while fostering team collaboration and technical mentorship.

Technical Skills

Programming Languages	Java (8/11), Python, C, C#, JavaScript (ES5/ES6), TypeScript, PHP, PowerShell, SQL, PL/SQL
Databases	PostgreSQL, MySQL, Oracle, Azure SQL, MongoDB, Cassandra, Firebase, DB2, Sybase, Elasticache
Frontend/UI Technologies	HTML5, CSS3, SASS, JavaScript, Bootstrap, jQuery, JSON, React.js, Redux, Next.js, Angular, Vue.js, Angular Material, NGRX, RXJS, Ag-grid, ADA, Figma
Backend / Server-side	Node.js, Express.js, ASP.Net, NestJS, Spring Boot 2.x, Spring MVC, Microservices, REST APIs, GraphQL, Swagger, JWT, OOP, Modular Architecture
Cloud Platforms & Services	AWS (EC2, ECS, Lambda, S3, RDS, SNS, SQS, CloudFront, CloudFormation, CloudWatch, IAM, Elastic Beanstalk, Elasticache), Azure (App Services, Functions, SQL), Firebase.
DevOps / CI-CD / Infra	Azure DevOps, Jenkins, GitHub Actions, TeamCity, GitLab CI/CD, Maven, Gradle, Docker, Kubernetes, Terraform, uDeploy.
Testing & QA	Jest, JUnit, Cypress, pytest, Jasmine, SonarQube, Checkmarx, Manual Testing, Test Plans.
Integration & Messaging	REST, GraphQL, SOAP, HTTP/HTTPS, XML, JSON, Kafka, RabbitMQ, API Security, OAuth2
Monitoring & Observability	ELK Stack, Splunk, AWS CloudWatch, Proactive Alerting, Log Analysis, Health Monitoring
Build & Deployment Tools	Maven, Gradle, Jenkins, Docker, Git, GitHub, GitLab, TeamCity, uDeploy, Terraform, pgAdmin
Architecture & Design	Distributed Systems, Scalable Architecture, Microservices, Event-driven Design, Singleton, Factory, MVC, Creational/Structural/Behavioral Patterns, DDD
Agile & Collaboration	Agile (Scrum, Kanban), SDLC, Sprint Planning, Standups, Jira, Confluence, UML, Documentation, Team Leadership, Code Reviews, Cross-functional Communication

Professional Experience

Singular Analysts

Feb 2024 - Current

Role: Senior Software Developer

- Developed the entire frontend on Next.js 14 App Router with React Server Components, enabling very rapid page transitions, reduced bundle size, and SEO for dynamic healthcare content.
- Combined LangChain.js and OpenAI on the frontend to realize a conversational AI interface capable of remembering user context, generating appointment summaries, and conducting real-time FAQ management on the browser side.
- Used JavaScript Fetch API and AbortController to introduce intelligent cancellation patterns in asynchronous AI requests to prevent unnecessary inference calls and make the UI more responsive when under load.
- Developed a modular UI with TypeScript + Tailwind CSS + ShadCN, which enables plug-and-play theming of components, accessible layout, and dynamic dark/light mode switching with saved preferences using localStorage.
- Implemented an AI-powered symptom checker with real-time suggestions using Web Workers to execute gigantic JSON NLP datasets client-side without blocking the UI.
- Used SpeechRecognition API to allow voice-enabled appointment booking, coordinating voice commands with dynamic UI suggestions and AI-based intent parsing.
- Built an intelligent text editor with Draft.js and OpenAI completions that enables doctors to auto-complete patient summaries and recommend next steps based on clinical context input in real-time.
- Created a floating React AI Assistant Bot with context-dependent ChatGPT integration, UI state-dependent dynamic conversation memory that alters depending on the screen or form the user is working on.
- Utilized React Suspense and Concurrent Features to load AI-driven components like diagnosis explanations in priority and reduce perceived latency for low-end devices.
- Developed custom React Hooks for exponential backoff and token throttling for OpenAI API calls for seamless user experience and robust error recovery for rate-limited APIs.
- Created a front-end AI-driven auto-tagging mechanism for medical records with drag-and-drop + preview based on FileReader and real-time label creation from uploaded PDFs based on OCR and AI.
- Leveraged Canvas API and TensorFlow.js to enable browser-side drawing and AI interpretation of drawn symptoms or injury outlines, overlaid on body maps.
- Created a GraphQL client with Apollo + Codegen that enabled strongly typed React hooks, AI-powered inline field suggestions, and automatic query optimization based on the behavior of users.
- Created animated, real-time AI prediction visualizations using Chart.js and requestAnimationFrame, displaying confidence levels and heatmaps with patient interaction dynamically.
- Implemented an interactive health recommendation system with JavaScript generators and Promises to enable lazy loading of OpenAI responses on scroll and touch without impacting the frame rate.
- Implemented client-side vector search using cosineSimilarity() on embedded AI results from Pinecone to allow users to search past symptoms and advice completely on the frontend.
- Developed bespoke Next.js middleware to serve AI-generated metadata tags conditionally for Open Graph and Twitter preview, enhancing dynamic SEO and social sharing of booked appointments.
- Developed a multi-step AI-powered form flow with real-time field validation, step skipping logic through JavaScript maps, and AI content prefill based on previous inputs.

- Implemented Progressive Web App (PWA) functionality with service workers to enable offline access, AI caching through IndexedDB, and local model inference fallbacks where necessary.
- Developed a micro-interaction engine with JavaScript's MutationObserver, firing AI content suggestions or tooltip insights when user input patterns suggest hesitation or confusion.

Center for Technology in Government, Albany, NY

Sep 2022 – Dec 2023

Role: Software Developer

- Directed the development of a mission-critical FEMA emergency alert system, developing a web-based solution that generates concise emergency messages in 90 or 360 characters in an extremely short time frame.
- Part of the most seasoned development team lead, volunteered to guide 3 junior developers through Agile processes like sprint planning, daily stand-ups, and retrospectives, while educating them on SDLC best practices and systematic project execution.
- Instituted standard task boards, process workflows, and documentation guidelines, which guided the team to break down user stories, document work, and provide traceability through the sprint backlog.
- Owned full-stack backend development with Python, including creation of a virtual environment (venv), API development with AWS Lambda, and integrating them with API Gateway through AWS SAM templates.
- Developed a secure, scalable user authentication system using AWS Cognito, such as login, session validation, and role-based access control for admin and regular users.
- Integrated AWS RDS (MySQL) for storing structured data, creating relational schemas, query performance optimization, and data integrity through SQL-safe query patterns.
- Designed and implemented REST APIs with robust error handling and schema validation, testing endpoints extensively using Postman and documenting responses for frontend consumption.
- Developed an entirely responsive frontend using React, HTML5, CSS3, Axios, and JSON for UI maximization in favor of real-time messaging requirements across all devices.
- Established secure API communication layers on HTTPS and CORS headers, enabling seamless interoperability among frontend React clients and backend Lambda services.
- Supervised junior developers how to use Git workflows, branch strategy, and code reviews and established best practices for version control through GitHub to ensure collaboration and stability.
- Comprehensive full-stack managed cloud infrastructure and AWS deployments, ranging from building Lambda functions, RDS instances, and API Gateway, to SAM CLI automation of deployment.
- Used SQL injection protection controls to prevent database interaction vulnerabilities, using parameterized queries and backend validation logic.
- Used Kafka for real-time processing of emergency messages, using consistent message queuing and event-based workflows for broadcastable dissemination at scale.
- Leverage Kubernetes for container orchestration, deploying containerized services into test environments to enable scalability, failover feature, and high availability.
- Implemented automated CI/CD pipelines using GitHub and Jenkins, which involve linting, test coverage (Jest + Karma), and deployment into AWS environments.
- Created and tested unit and functional pieces of code using Jasmine, Karma (Angular), and Postman (API), contributing to a robust release pipeline with over 85% coverage.

- Installed frontend/backend modules alongside AWS services such as CloudWatch (logging), S3 (static assets), and CloudFront (CDN for performance).
- Implemented comprehensive technical documentation and onboarding guides, ensuring easy knowledge transfer and future maintainability of the system.
- Worked directly with the project manager to set timelines, determine risks, and ensure that all feature delivery met FEMA's mission-critical requirements and compliance standards.
- Successfully completed the FEMA project from ground up in 8 months, meeting all deliverables, attaining production stability, and enabling emergency communication at national level..

ValueLabs LLC, India

Oct 2019 – Jul 2022

Role: Senior Software Engineer

- Promoted from Software Engineer to Senior Software Engineer in just 2 years and honored as “Star of the Month” for diagnosing and fixing a production-critical issue during a major incident window.
- Increasing from Software Engineer to Senior Software Engineer within only 2 years and receiving the "Star of the Month" award for discovering and fixing a production-critical issue within a high-profile window.
- Mentored development of 50+ scalable APIs using Spring Boot, AWS Lambda, and API Gateway to service employee appreciation and order fulfillment systems for multiple services.
- Streamlined the complete order delivery process using PHP and CRON jobs, eliminating bottlenecks and enabling end-to-end traceability from order creation to dispatch alerts.
- Enhanced UI/UX responsiveness by 50% and optimized deployment with AWS Elastic Beanstalk.
- Refactored the frontend layer of an old PHP app using React while preserving backend behavior to deploy a new SPA with enhanced performance and ease of maintenance.
- Implemented robust and secure login processes through AWS Cognito and Two-Factor Authentication, enhancing the identity management and security procedures of the platform.
- Created full-stack modules using ReactJS and Spring Boot, containerized them using Docker, and deployed across different environments for predictable behavior and trouble-free rollout.
- Tuned high-level SQL queries running on AWS RDS (PostgreSQL), reducing query response time by 30% and significantly enhancing backend processing efficiency.
- Developed extremely interactive, cross-browser-compatible UIs using HTML5, CSS3, Bootstrap, jQuery, and ReactJS, optimizing performance on desktop and mobile platforms.
- Implemented hybrid deployment using both on-premises infrastructure as well as AWS Elastic Beanstalk, enabling seamless scaling to over 1,000 enterprise users without interrupting services.
- Built an interactive employee ratings web application using ReactJS, PostgreSQL, AWS Lambda, and API Gateway, optimizing review cycles and enabling real-time collection of feedback.
- Deployed end-to-end CI/CD pipelines using Jenkins, executed automated integration and unit testing using JUnit and Jest, and offered bug-free deployment to production.
- Configured SFTP services for secure and reliable data exchange between internal modules and third-party sites, offering encryption and delivery monitoring.
- Built interactive dashboards and analytical reports using D3.js and JavaScript libraries, offering graphical tracking of indicators like order success rates and user activity.
- Used Splunk for log analysis and production monitoring, which simplified the identification and resolution of issues in less time, improving system uptime and incident response.

- Employed version control through Git, managed branching strategies, conducted rigorous code reviews, and merged stable changes through GitHub workflow pipelines.
- Implemented code quality through SonarQube and Checkmarx integrations, and worked with DevOps teams to incorporate security scans into the Jenkins CI/CD process.
- Witnessed all Agile rituals including daily stand-ups, sprint planning, and retrospectives, synchronizing release calendars between staging and mirror environments.
- Supported junior developers and interns in React best practices, RESTful APIs, code debugging, and deployment, leading to faster onboarding and delivery.
- Created an interactive "experience browser" that overlaid real-time product data onto client sites to allow retailers to review, annotate, and comment on live content.
- Brought in legacy AngularJS controllers into modern Angular 2+ modules and React-based architecture, where technical debt reduced, and maintainability improved.

Gill Instruments Pvt Ltd, India | Software Engineer

Aug 2018 – Aug 2019

Role: Software Engineer

- Created responsive web pages using HTML, CSS, JavaScript, and ReactJS, and learned to create clean and reusable components that looked great across devices.
- Collaborated with backend developers to connect React applications to REST APIs, and got first-hand experience with API calls, data rendering, and dealing with loading states.
- Helped implement secure login and user authentication using AWS Cognito and gained insight into the behind-the-scenes operation of access tokens and roles.
- Took part in daily stand-up calls, sprint planning, and retrospectives where I gained insight into how Agile teams stay on the same page and on track towards delivery goals.
- Wrote unit tests for React components using Jest and React Testing Library and learned how small changes break things without testing.
- Helped develop backend APIs using Node.js and Express, finishing small features like data submission and database querying in MongoDB.
- Used Git and GitHub for code collaboration, pushing commits, pulling requests, and learning how version control helps teams work better together.
- Helped implement CI/CD pipelines using GitHub Actions and Jenkins to automate deployment and builds, which taught me how code is deployed from development to production.
- Spent time reviewing SQL queries and optimizing them with instruction, learning how query structure affects performance and response times.
- Heavily utilized Postman to test API endpoints, try out different HTTP methods, and debug issues in request/response formats.
- Was exposed to DevOps tools like SonarQube and Azure DevOps and learned how they help maintain high code quality and manage deployments.
- Designed the UI of dashboards and forms using Bootstrap and JavaScript, making sure all of it was responsive and user-friendly.
- Supported deploying projects to AWS using EC2, S3, and Lambda — it gave me hands-on experience in how cloud hosting and serverless functions work.
- Taken charge of documenting features and how-to guides on Confluence, so other members on the team could simply follow along or onboard faster.

- Learned a lot just by observing and coding with senior developers — from how they variable-name and write clean code to how they plan for edge cases and scalability.

Certifications

- AWS Certified Cloud Practitioner
- AWS Certified Associate Developer
- LabView Certified Associate Developer

Education

- **Master's in data science** | University at Albany, Albany, NY | CGPA: 3.3/4
- **Bachelors in Electronics and Communications** | S R University, India | CGPA: 3.44/4