

NITHYANANDA REDDY

Java Full Stack Developer

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PROFESSIONAL SUMMARY

- **5+ years of experience as an accomplished Full-Stack Developer**, delivering high-performance, scalable software solutions across diverse industries.
- Dynamic and results-oriented Full Stack Developer with experience in building scalable, high-performance web applications using **Java 17, Spring Boot 3.x, React 18, and Angular 14**.
- **Proficient in designing microservice-based architectures** and implementing cloud-native solutions on **AWS** using **ECS, Lambda, API Gateway, RDS, and S3**.
- Skilled in developing **RESTful and GraphQL APIs**, integrating real-time messaging systems using **Kafka and RabbitMQ**, and implementing secure, event-driven systems.
- **Proficient in database design**, including **relational databases** (e.g., **Oracle, MySQL**) and **NoSQL databases** like **MongoDB**, ensuring efficient data management, complex queries, and system performance.
- Experienced in DevOps practices using **Docker, Kubernetes, Terraform, and CI/CD** tools like GitLab CI/CD and Jenkins.
- Demonstrated ability to collaborate within Agile teams, mentor peers, and follow best practices in **TDD** and clean code using **JUnit5, Mockito, Cypress, and SonarQube**.
- Experienced with **version control using Git** and **Agile methodologies**, leveraging **JIRA** for project management, issue tracking, and sprint planning to drive development and ensure alignment with project goals.
- Expertise in implementing **CI/CD pipelines** using **AWS CodePipeline, AWS CodeDeploy, Aws CodeBuild** and other tools to automate build, test, and deployment processes, ensuring faster and more reliable releases.
- Proficient in **Java concurrency**, leveraging **multithreading**, thread pools, and concurrent collections to develop high-performance, thread-safe applications
- **Exceptional problem-solving and debugging abilities**, consistently delivering optimized solutions while collaborating with cross-functional teams.
- Deep knowledge of **algorithms, data structures, and design patterns**, enabling the development of maintainable and efficient codebases.

TECHNICAL SKILLS

Category	Technologies
Programming Languages	Java (8/11/17), Kotlin, C, J2EE, TypeScript, Python, JavaScript
Frameworks	Spring Framework (MVC, Security, Data JPA, Cloud, WebFlux), Hibernate (ORM, Search, Validator), JSF, Struts 2, NodeJS, SpringBoot, ReactJS
Cloud Platforms	AWS (EC2, RDS, S3, DynamoDB, Lambda, CloudFormation, CloudWatch, CodePipeline, CodeBuild, Elastic Beanstalk), Docker, Kubernetes, Terraform
Mark-up/XML Technologies	XML, XSD, JSON
Web/App Servers	Apache Tomcat, JBoss/WildFly, Jetty
Databases	Oracle, MySQL, PostgreSQL, DB2, MongoDB, Cassandra
Web Services/API Services	REST (JAX-RS, Spring REST), SOAP (JAX-WS), GraphQL, OpenAPI/Swagger

Testing Tools	JUnit, Mockito, TestNG, AssertJ, WireMock, Cucumber, Selenium, JMeter, Postman, Karate
Logging/Others	Log4j/Logback, SLF4J, Micrometer, Prometheus, Grafana
Version Control	Git, GitHub, GitLab, Bitbucket
Development Tools/Environments	Maven, Ant, Eclipse, IntelliJ IDEA, Visual Studio Code, Jira, PyCharm, Jupyter, Gradle
Middleware/Messaging Systems	Apache Kafka, RabbitMQ, ActiveMQ, Apache Camel, Spring JMS
CI/CD Tools	Jenkins, GitLab CI/CD, Docker Hub, AWS CodePipeline, AWS CodeBuild, Bamboo
Other Tools and Technologies	UNIX, Apache Tomcat, Hibernate Search, Apache Cassandra-Spark Connector, Dropwizard, ELK Stack (Elasticsearch, Logstash, Kibana), Ansible, Kubernetes Helm, Perl, JMS (Java Messaging Service), Apache Maven, Shell
Soft Skills	Problem Solving, Communication, Teamwork, Leadership, Adaptability

EXPERIENCE

United States Patent and Trademark, Alexandria, Virginia
Full Stack Developer

May 2024 – Present

Project Overview:

Led full stack development efforts to modernize patent processing applications used by internal examiners and public users. Specialized in building highly responsive and secure React-based frontends integrated with scalable Spring Boot microservices. Focused on performance optimization, accessibility compliance, and real-time collaboration features across systems.

Frontend Development:

- Engineered complex, high-performance UIs using **React 17**, **TypeScript**, and **Redux**, enabling efficient workflows for patent filing, review, and tracking.
- Developed reusable UI component libraries following atomic design principles to maintain consistency and scalability across projects.
- Integrated **WebSocket** for real-time updates on patent status changes, notifications, and examiner comments.
- Enhanced accessibility (Section 508/WCAG compliance) using semantic HTML and ARIA roles, supporting a diverse user base including federal employees and the public.
- Implemented dynamic data visualizations using **D3.js** and **Chart.js** to track examiner productivity, application backlogs, and legal timelines.
- Focused on performance optimization with **code splitting**, **lazy loading**, and **memoization**, resulting in faster load times and improved Lighthouse scores.

Backend Development:

- Built and maintained **Spring Boot** microservices to manage patent metadata, user roles, document processing, and system events.
- Developed RESTful and GraphQL APIs to support frontend data consumption, including advanced filtering and pagination for large datasets.
- Implemented **OAuth2** and **JWT** for secure, scalable authentication and session management.
- Designed asynchronous processing pipelines using **Apache Kafka** for application intake, notifications, and legal status tracking.
- Integrated PDF generation and document parsing with **Apache PDFBox** for examiner and legal reports.

DevOps & Infrastructure:

- Containerized services using **Docker** and deployed via **Kubernetes** in a secure hybrid cloud setup.
- Automated CI/CD pipelines using **Jenkins**, with integrated **SonarQube** for static code analysis and coverage enforcement.
- Provisioned cloud infrastructure with **Terraform**, managing IAM policies, S3 buckets, VPCs, and security groups.
- Used **Prometheus** and **Grafana** for monitoring service health, log analytics, and capacity planning.
- Ensured compliance with federal security standards and conducted regular audits via **CloudTrail**-like audit logging systems.

Collaboration & Achievements:

- Delivered a mission-critical patent examiner dashboard used daily by over 1,000 USPTO staff.
- Played a key role in reducing average application review time by 25% through UX streamlining and backend optimizations.
- Actively participated in Agile ceremonies and led React best practice sessions across multiple teams.

Environment:

React 17, TypeScript, Redux, WebSocket, D3.js, Chart.js, Java 17, Spring Boot, REST, GraphQL, Kafka, OAuth2, JWT, PostgreSQL, Docker, Kubernetes, Jenkins, SonarQube, Prometheus, Grafana, Terraform, Git, JIRA, PDFBox.

Fannie Mae, Dallas, VA

Full Stack Develop

Aug 2023 – Feb 2024

Project Overview:

Contributed to the development of digital mortgage solutions including the HomeReady® Mortgage platform, focused on modernizing loan origination systems and improving borrower experience. Built scalable Java-based microservices and React frontends to handle eligibility checks, document processing, and credit assessment automation. Emphasized security, system reliability, and integration with Fannie Mae's enterprise data systems.

Frontend Development:

- Developed intuitive and responsive interfaces using **React 18**, **TypeScript**, and **Redux**, streamlining borrower and lender workflows.
- Created reusable design components following atomic design principles, ensuring brand and UX consistency across origination tools.
- Integrated **GraphQL** and **REST APIs** for real-time mortgage product validation, eligibility calculations, and document previews.
- Implemented accessibility standards (WCAG 2.1) to ensure inclusive usability for applicants of varying abilities.
- Employed **React Query**, **code splitting**, and **lazy loading** to optimize page load performance and reduce latency during high traffic.
- Collaborated with UX teams to A/B test mortgage workflows using LaunchDarkly and Google Optimize for data-driven feature rollouts.

Backend Development:

- Engineered robust **Spring Boot microservices** for borrower profiling, underwriting rules, and property eligibility processing.
- Built and maintained **Kafka**-driven event pipelines to process borrower income, credit reports, and application status updates in real time.
- Integrated external APIs for FICO score pulls, housing market trends, and AMI (Area Median Income) datasets.

- Designed and enforced **OAuth2**-based authorization and **JWT** session tokens to secure multi-role access across lender and borrower portals.
- Utilized **PostgreSQL** and **MongoDB** for handling relational mortgage application data and document metadata.
- Supported dynamic document generation using PDF libraries for lender disclosures and borrower documents.

DevOps & Infrastructure:

- Dockerized services and deployed to **AWS EKS**, enabling blue/green deployments and zero-downtime updates.
- Managed CI/CD pipelines using **CodePipeline** and **CodeBuild**, integrating with SonarQube for quality gates and code coverage.
- Provisioned infrastructure using **Terraform**, including secure S3 buckets, IAM roles, Lambda triggers, and API Gateway routes.
- Set up **CloudWatch** dashboards and alarms for service health, latency metrics, and audit trails.
- Collaborated with security teams to ensure **Fannie Mae** systems met regulatory standards including SOC 2 and internal compliance audits.

Collaboration & Achievements:

- Played a key role in launching enhancements to the **HomeReady® Mortgage** eligibility engine, increasing daily processing capacity by 40%.
- Reduced time-to-decision for loan applications by ~30% through UI streamlining and backend optimizations.
- Mentored junior developers on full stack best practices and React state management.
- Actively contributed to Agile sprints, backlog grooming, and stakeholder demos with product owners and underwriting specialists.

Environment:

React 18, TypeScript, Redux, GraphQL, REST, Java 17, Spring Boot 3.x, Kafka, OAuth2, JWT, PostgreSQL, MongoDB, AWS (EKS, Lambda, S3, API Gateway, CodePipeline, CloudWatch), Docker, Terraform, SonarQube, Git, JIRA, LaunchDarkly.

Tata Consultancy Services, Bengaluru, India

Jun 2022 – July 2023

Full Stack Developer

Project Overview:

Developed an Insurtech portal enabling real-time insurance claims processing. Built scalable Spring Boot microservices and Angular 14 frontend applications, ensuring seamless data flow and responsive user experience. Utilized Kafka for event-driven communication and Redis for efficient caching. Deployed services on AWS EKS with blue-green deployments to achieve high availability and smooth rollouts.

Frontend Development:

- Developed dynamic and responsive UI components using Angular 14, TypeScript, and RxJS, enhancing the customer experience in managing insurance claims.
- Integrated GraphQL APIs to allow flexible querying and efficient data fetching tailored to mobile and web clients.
- Built reusable UI components and design patterns to accelerate feature delivery across modules.
- Ensured cross-browser compatibility and responsiveness using Bootstrap and SCSS.
- Implemented client-side caching and state management with NgRx for optimized performance.
- Conducted accessibility improvements aligned with WCAG standards, improving usability for all users.

Backend Development:

- Built over 10 loosely coupled microservices using Java 11, Spring Boot, and MongoDB, supporting modules such as policy validation, claims adjudication, and customer notifications.
- Designed RESTful and GraphQL APIs with comprehensive Swagger/OpenAPI documentation for internal and third-party consumption.
- Integrated Apache Kafka for processing real-time claim events, notifications, and audit logs with high throughput and resilience.
- Utilized Redis for caching frequently accessed data like policy details and user sessions, reducing latency and improving API responsiveness.
- Implemented Role-Based Access Control (RBAC) using Keycloak and Spring Security, managing access policies across roles and services.
- Adopted a test-driven approach using JUnit 5 and Mockito, achieving >85% unit test coverage.

DevOps & Infrastructure:

- Dockerized all backend services and deployed to AWS Elastic Kubernetes Service (EKS) using Helm charts and blue-green deployments to ensure zero-downtime releases.
- Automated CI/CD pipelines using Jenkins for build, test, and deployment processes with integrated quality gates and rollback strategies.
- Used Amazon CloudWatch and Prometheus for monitoring system metrics and setting up alerting on error rates and latency thresholds.
- Defined infrastructure as code using Terraform, managing AWS resources like VPCs, IAM roles, and security groups in a reproducible manner.
- Implemented S3-based storage for document uploads and claim attachments, ensuring secure and durable access.

Collaboration & Achievements:

- Mentored junior developers and assumed lead responsibilities within 3 months of joining the project.
- Built and launched a reporting dashboard accessed by over 700 client users for claim insights and processing timelines.
- Worked closely with QA teams to implement end-to-end testing using Cypress and Postman, enhancing release confidence and stability.

Environment:

Java 11, Spring Boot, Angular 14, TypeScript, GraphQL, MongoDB, Redis, Apache Kafka, REST APIs, Keycloak, OAuth2, JWT, Docker, AWS EKS, S3, Terraform, Jenkins, Prometheus, CloudWatch, JUnit 5, Mockito, Cypress, Git, JIRA.

Zomato, Hyderabad India

March 2019 – MAY 2021

Software Developer

Project Overview:

As a Full Stack Developer contributed to the development of a restaurant search and order management system. Built responsive Angular UIs and implemented scalable serverless APIs using AWS services such as API Gateway and Lambda. Ensured performance, security, and seamless data handling by leveraging cloud-native tools like DynamoDB, Cognito, and S3.

Frontend Development:

- Designed and implemented interactive and responsive UI components using Angular, enhancing user experience in restaurant discovery and order placement workflows.

- Utilized RxJS and Angular lifecycle hooks (ngOnInit, ngAfterViewInit) to manage asynchronous data flow and optimize page responsiveness.
- Applied mobile-first design principles and SCSS for styling to ensure consistent cross-device performance.
- Enabled faster development by creating reusable modules and UI patterns across the application.

Backend & API Development:

- Developed RESTful APIs using AWS Lambda (Node.js) integrated with API Gateway to support core features such as restaurant listings, menu management, and order status updates.
- Implemented secure and scalable login and session management with AWS Cognito using token-based authentication and user pools.
- Used DynamoDB for real-time order tracking and state management, supporting high-throughput data access with minimal latency.
- Stored and retrieved media content (e.g., restaurant logos and food images) from Amazon S3, ensuring durability and fast access.

DevOps & Collaboration:

- Followed CI/CD practices using GitHub Actions and AWS CodeBuild for automated testing and deployment of serverless functions.
- Participated in daily standups and sprint planning with product managers, designers, and QA to ensure feature alignment and timely delivery.
- Wrote unit tests for frontend components and Lambda handlers to maintain code quality and reduce regression risks.

Environment:

Angular, TypeScript, RxJS, AWS Lambda, API Gateway, DynamoDB, S3, Cognito, GitHub, AWS CodeBuild, HTML5, SCSS, Node.js.

EDUCATION

Master's in computer science - University of Central Missouri, Kansas City, MO.