

Amrutha Nagaraj

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OBJECTIVE

Full-Stack and Software Engineer skilled in React, TypeScript, Node.js, Java, and cloud-native development, with hands-on experience building scalable web applications, backend services, data pipelines, and CI/CD systems. Focused on building reliable, high-performance, and maintainable software for real-world products.

EDUCATION

University of Central Florida

Orlando, FL

Masters in Computer Engineering

December 2024

- Software Development & Networks, Analysis of Algorithm, Machine Learning, Artificial Intelligence, Cybersecurity, Software Engineering, Computer Design & Computer Architecture, Computational Complexity

Visvesvaraya Technological University

Bengaluru, India

Bachelor in Engineering in Computer Science and Engineering

- Data Structures, Data Base Management System, Operating Systems, Big Data Analytics, Object Oriented Programming, Computer Organization and Architecture, Automata Theory and Computability.

EXPERIENCE

Software Engineer (Full Stack)

March 2025 - Present

KGS Technology Financial – React, Python, Node.js, JavaScript, AWS, Docker

Alpharetta, GA

- Developing and maintaining **RESTful APIs and data services** using **Node.js (TypeScript)** to support finance workflows and transformation of large datasets—aligned with scalable data pipeline development.
- Building CI/CD using **Jenkins & GitHub Actions** to streamline build, test, and deployment workflows.
- Participating in **sprint planning**, code reviews, and Agile ceremonies to deliver backend features.
- Monitoring deployments with **AWS CloudWatch**, troubleshooting performance issues & ensuring data accuracy.
- Collaborating with cross-functional teams across time zones using **Jira, GitHub, and Slack**.
- Contributing to **SDLC**, including requirements, development, CI/CD, and production monitoring.

Graduate Teaching Assistant

2022 - 2024

UCF – Java, DevOps, Python, Azure, JavaScript, Spring Framework, Automated Testing

Orlando, FL

- Mentored 200+ students in **Java, JavaScript, React, and DevOps** concepts through weekly hands-on labs.
- Guided teams in secure application development, containerization using **Docker**, and **CI/CD** pipeline.
- Assisted students in deploying containerized applications using **Docker & Azure**, reinforcing cloud-native engineering fundamentals.
- Led labs on backend development & database integration using **SQL Server** and authentication workflows.
- Conducted workshops on **test-driven development (TDD)** using JUnit, Jest, and Cypress for unit and integration testing.
- Coordinated with faculty to design weekly development exercises, grading rubrics, and project assessments.

Software Engineer (Full Stack)

2020 - 2022

Cognition – Java, SpringBoot, Oracle DB, React.js, Node.js, CI/CD

Bengaluru, India

- Built and maintained financial services backend using **Java, Spring Boot and Node.js**, integrating with **OracleDB** for production-grade deployments.
- Developed reusable **React + Redux** components to improve frontend performance and maintainability.
- Designed and optimized **ETL pipelines** for real-time data aggregation and reporting, reducing latency and improving analytics accuracy.
- Managed relational database operations using **Hibernate ORM & JDBC**, optimizing queries and database access patterns in OracleDB.
- Implemented secure authorization using **JWT & RBAC**, with fintech security and compliance standards.
- Built backend payment & account management using **Spring Boot & Node.js**, supporting transaction flows.
- Developed stored procedures using **MySQL and Oracle SQL** for data transformation and reporting workflows.
- Delivered enterprise-grade features in biweekly **Agile** sprints, collaborating with QA, DevOps, and product teams using **Jira and Git**.

TECHNICAL SKILLS

Languages and Frameworks: Java, Spring Boot, Hibernate, Node.js, Express.js, JavaScript (ES6+), TypeScript, Python, React, Redux, Next.js, Vue.js, HTML5, CSS3, Tailwind, Django

DevOps & Cloud Tools: AWS (Lambda, ECS, SQS, RDS), Google Cloud Platform, Azure, Docker, Kubernetes, GitHub Actions, Jenkins, Apache Airflow, Maven, Git

Testing & Quality: Test-Driven Development (TDD), JUnit, PyTest, Cypress, Selenium, SQL Profiler

Database: PostgreSQL, MySQL, SQL Server, OracleDB, Amazon RDS, MongoDB, ElasticSearch

Data Engineering: ETL Pipelines, Data Ingestion, Data Transformation, Airflow Orchestration, SQL Analytics

System Design: Distributed Systems, Microservices, Scalable Architecture, REST API Design, JSON

Agile Methodologies: Agile, Scrum, Sprint Planning, Pair Programming, Code Reviews, Jira, GitHub

Soft Skills: Interpersonal Communication, Continuous Learning, Teamwork, adaptability, communication, Negotiation, Analytical and Problem-Solving Skills, System Reliability, Time Management

PROJECTS

ETL-driven SEO Dashboard | *React, MySQL, Express.js, Node.js, JavaScript, HTML, Data visualization* 2024

- Led ETL pipeline lifecycle, employing Python to extract data from the **Google Search Console API**, transform it, and load it into **MySQL**.
- Developed RESTful API using **Node.js & ExpressJS** to serve SEO data fetched from data warehouse to the **React dashboard**.

Flight Booking System | *Python, Django, SQLite, HTML5, CSS3, JavaScript, Scalable, PyTest, Back-end* 2024

- Developed a reliable flight search feature in the Reservation system, with data from 120 airports and 13,000 flights. Achieved a 95th percentile response time of 100ms on search APIs, with a **Test-Driven Development** approach.
- Incorporated iterative improvements, such as indexing, caching, and query optimization utilizing Django, a **MVC Framework** for the backend & **SQLite** for the database in a team environment and participated in code reviews.

Library Management System | *TypeScript, React, Redux, Redis, Django, PostgreSQL, GraphQL, Unit Testing* 2024

- Designed frontend with **React** and **TypeScript**, enabling administrators to manage user operations effortlessly, designed with accessibility and responsiveness in mind to serve a wide range of users efficiently.
- Contributed iterative improvements by implementing APIs using **Django & PostgreSQL**, **GraphQL** for robust data storage, enhancing the efficiency and security of user management functionality.
- Built GraphQL APIs with Django, PostgreSQL for efficient, secure data queries and flexible frontend integration.

Full Stack Development | *Java, Spring Boot, Microservices, Mockito, PostgreSQL, AWS Cloud, ORM* 2023

- Led the implementation of backend functionalities using the **Java Spring Framework**, ensuring secure user authentication and seamless data processing.
- Designed **PostgreSQL** databases using **Spring Data JPA** and **JDBC**, optimizing CRUD operations.
- Developed backend, deployed distributed systems on AWS, following & **Spring Boot** architecture patterns.

AzureMaze | *Java, HTML, DOM, JavaScript, JQuery, Spring Framework, Azure, Automated Testing* 2023

- Set up RESTful APIs endpoints for game logic, integrated **Swagger** for documentation, containerized with Docker & explored **Kubernetes**, configured CI/CD pipelines using GitHub Actions, & collaborated with frontend developers for smooth UI and performed testing with the **Selenium framework** .
- Built and deployed backend game logic as independent **microservices** on Azure App Services, enabling reliable scaling, CI/CD automation, and seamless frontend integration.

E-Commerce Web Application | *Java, Spring Boot, Spring Data, JDBC, RESTful web services, Eclipse, JVM* 2023

- Responsible for developing core functionality in **Spring Boot**, implementing **RESTful APIs** for user authentication, product listing, and order processing. Ensuring adherence to best practices for user experience.
- Handled database interaction with **Hibernate**, ensuring entity mapping. Integrated security measures for user authentication & authorization to safeguard data and Collaborating with front-end developers for seamless UI.

Data Processing Pipeline | *Python, Back-end, Apache Kafka, PySpark, Scalable, S3, Redshift, DynamoDB* 2023

- Implemented deployment strategies using **Kubernetes** for container orchestration and automated CI/CD pipelines with **Jenkins**, ensuring seamless rollouts and minimizing downtime.
- Enhanced system performance by optimizing data workflows, reducing latency, and enabling reliable data processing at scale.