

# Sai Kumar Nekkanti

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## Experience

### Diaconia

Software Development Engineer Intern

Jun 2024 – present

Gaithersburg, MD, USA

#### Tech Stack: Next.js, Python, Docker, GitHub Actions, LLMs, Flask

- Built a responsive UI using Next.js and USWDS design principles, achieving Lighthouse performance scores above 90 across all categories for improved speed, accessibility, and user experience
- Streamlined application deployment by implementing Docker containerization and GitHub Actions CI/CD pipelines, achieving 85% faster updates (under 5 minutes) and reducing deployment errors by 60%
- Engineered containerized Flask backend integrating VILT vision models and LLMs, reducing response times by 20% through optimized data preprocessing and query handling

### Rakuten

Software Engineer 2

Apr 2023 – Jul 2023

Bengaluru, India

#### Tech Stack: Java, React.js, Webpack, Vue.js, Go, Storybook, Django, Node.js

- Improved code quality by enforcing custom ESLint rules, reducing code review issues by 40%, and integrating Storybook for efficient UI component documentation and testing.
- Led 3-person team in modernizing legacy application with micro frontend architecture; reduced load time by 60% and enabled React.js/Vue.js support via Webpack 5 module federation
- Architected and led transformation of legacy monolith into microservices using Node.js and Django, resulting in 40% faster data processing and scalable handling of 100K+ daily transactions

### Rakuten

Software Engineer 1

Jan 2022 – Mar 2023

Bengaluru, India

#### Tech Stack: Java, Vue.js, React.js, Go, TypeScript, Node.js

- Reduced dashboard defects by 40% through implementing comprehensive unit testing, while serving as primary liaison between Product Management, UX, and Development teams
- Maintained modular Vue.js code with structured internationalization, cutting technical debt by 25% and enabling faster updates
- Developed a scalable, automated e-commerce demo application with order, catalog, and user management services using Go, PHP, Java, and Node.js, reducing build approval times by 80% in the pre-production environment
- Enhanced customer-facing Node.js library by resolving 95% of tickets within SLA targets and integrating new features, boosting stability and usability

### Rakuten

Associate Software Engineer

Jul 2020 – Jan 2022

Bengaluru, India

#### Tech Stack: Java, SpringBoot, gRPC, Go, Elasticsearch, Memcached, Vue.js, Vuex

- Streamlined data access by building a backend-for-frontend (BFF) microservice using Spring Boot, reducing redundant queries by 75% and improving data delivery speed and efficiency to the frontend
- Reduced database costs by 40% through implementing a caching layer with Memcached and optimizing service communication using encrypted gRPC, while maintaining 99.99% system uptime
- Led development of Golang observability solution, including tracing library and monitoring plugins, achieving 98% on-time resolution of customer issues
- Led 6-person team in comprehensive UI modernization, implementing Vuex state management and Vue Router best practices that eliminated redundant GraphQL calls and reduced page load times by 40%

### Rakuten

Software Developer Intern

Jan 2020 – July 2020

Bengaluru, India

#### Tech Stack: Go, Java, Docker, MySQL, Okta, Vue.js, JavaScript

- Reduced build time by 25% through Dockerfile optimization and Makefile automation for a Golang/Vue.js application
- Implemented secure Okta authentication system, reducing login errors by 35% and enhancing user experience through seamless single sign-on integration
- Designed and implemented REST APIs for role-based access control, delivering 90% test coverage with Mockito and complete Swagger documentation

## Technical Skills

**Languages:** Java, Python, Go, JavaScript/TypeScript, HTML5/CSS, SCSS, Bash

**Frameworks:** Spring Boot, Mockito, Junit, Node.js, Reactjs, Redux, React Router, React Hooks, Jest, Next.js, Vue.js, Vuex

**Database:** MongoDB, Elasticsearch, MySQL, PostgreSQL, DynamoDB, Memcached, Kafka

**Cloud:** Git (Github/Bitbucket), Jenkins, Docker, Kubernetes, Prometheus, AWS, EC2, ELB, Lambda, ECS, S3, SQS

## Education

George Washington University - M.S. in Computer Science

Aug 2023 – May 2025

Washington, DC

## Projects

**Distributed Music Recommendation System** — Java, Python, Next.js, Docker, Kafka, Kubernetes

May 2024

- Engineered resilient microservice architecture with Spring Boot, Kubernetes, and Kafka, demonstrating 97% uptime during chaos testing with automated failure injection and peak traffic simulation