

# SAI SRINATHREDDY SIVAREDDY

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## PROFESSIONAL SUMMARY

Dynamic Full Stack Backend Engineer with 5+ years of experience specializing in scalable web applications, cloud-native architectures, and secure backend systems. Proven expertise in designing robust RESTful APIs, optimizing performance for high-traffic platforms, and implementing DevOps practices to accelerate deployments. Excelled in healthcare and real estate domains, delivering solutions that boosted client engagement by 40%, reduced latencies by up to 200ms, and enhanced operational efficiency by 25%. Passionate about leveraging AI/ML tools like Langchain and Ollama for innovative projects, with a strong focus on agile methodologies, security compliance, and full-stack development using Python, Java, and JavaScript ecosystems. Seeking to drive impactful backend innovations in fast-paced tech environments.

## TECHNICAL SKILLS

- Languages:** Python, Java, JavaScript (ES6+), C, C++, Bash/Shell Scripting, TypeScript
- Databases:** SQL (MySQL, PostgreSQL, PL/SQL, Oracle), NoSQL (Cassandra, MongoDB, Redis for caching)
- Frameworks & Libraries:** FastAPI, Spring Boot, React.js, Django, Flask, Bootstrap, Spring Security, JUnit, Mockito, Langchain, Ollama, Streamlit
- Tools & Platforms:** Git, Docker, Kubernetes (basic orchestration), Google Cloud Platform (GCP: Compute Engine, Cloud Storage, App Engine), AWS (EC2, S3, Lambda, RDS), JIRA, Confluence, Sentry (error monitoring), CI/CD (GitHub Actions, Jenkins), Postman (API testing), Great Expectations (data validation)
- DevOps & Cloud:** Agile/Scrum, RESTful APIs, Microservices Architecture, Containerization, Infrastructure as Code (Terraform basics), Monitoring (Prometheus, Grafana), Logging (ELK Stack)
- Other:** Unit/Integration Testing, Authentication/Authorization (OAuth, JWT, Bcrypt), Performance Optimization, Data Encryption, SQL Injection/XSS Prevention, Version Control Best Practices, AI/ML Integration (Embeddings, RAG Pipelines), Responsive UI Design

## PROFESSIONAL EXPERIENCE

### Full Stack Developer | Full Creative, Chennai, India

January 2022 – August 2023

- Engineered a scalable virtual receptionist platform using React.js and Spring Boot, resulting in a 40% increase in client engagement, onboarding 20+ new clients monthly, and handling 10,000+ daily user interactions with 99.9% uptime.
- Optimized application scalability and response times by integrating GCP-based caching solutions (e.g., Redis on Cloud Memorystore), reducing average latency by 200ms and supporting a 50% surge in traffic without performance degradation.
- Enhanced system reliability by developing high-performance REST APIs integrated with backend services, improving data processing speed by 25%.
- Automated CI/CD pipelines with GitHub Actions and Docker, slashing deployment times by 50% (from 30 minutes to 15 minutes per release) and enabling bi-weekly feature rollouts with zero downtime deployments.
- Spearheaded Docker-based CI/CD implementation, accelerating application deployments by 10x (from hours to minutes).
- Led agile initiatives through code reviews, feature prioritization, and cross-team collaboration, accelerating product delivery by 20% and contributing to 15+ successful sprint completions ahead of schedule.
- Implemented microservices architecture for modular backend components, improving maintainability and allowing independent scaling of services, which reduced overall system complexity by 30%.

### Backend Developer | Cognizant, Bangalore, India

June 2020 – January 2022

- Designed robust authentication and authorization mechanisms for a healthcare application using Spring Security and JWT, achieving zero reported security vulnerabilities in annual penetration tests and ensuring compliance with HIPAA standards for 100,000+ user records.
- Boosted code reliability by 30% through comprehensive unit and integration testing with JUnit and Mockito, covering 85%+ code branches and reducing post-deployment bugs by 40%.
- Redesigned CI/CD pipelines in a DevOps environment using Jenkins and Git, accelerating delivery timelines by 40% (from 2 weeks to under 1 week per cycle) and automating 90% of manual testing processes.
- Collaborated with cross-functional teams to automate healthcare workflows with Python scripts and REST APIs, improving operational efficiency by 25% and processing 5,000+ daily patient records with 99% accuracy.
- Optimized database queries in PostgreSQL and Cassandra, reducing query execution times by 35% and handling peak loads of 1,000 TPS without bottlenecks, enhancing application responsiveness for end-users.

## EDUCATION

### Master of Science in Computer Engineering | New York University, New York, NY | CGPA: 4.0/4.0

September 2023 – May 2025

- Relevant Coursework: Advanced Algorithms, Cloud Computing, Database Systems, Machine Learning, Software Engineering

## PROJECTS

### Video Search Engine | Django Rest Framework, React, Whisper Model, Sentence Transformer, Python, NoSQL

Completed: May 2025

- Built a Django-based video search application that validates and processes short video uploads, auto-transcribes them using Faster-Whisper, and splits content into 5-second semantic segments.
- Implemented embedding-based natural-language search using sentence-transformers and cosine similarity with optional FFmpeg frame extraction for precise, timestamp-level video navigation.

### NICE Cruise Booking Management System | React.js, Spring Boot, MySQL, REST APIs

Completed: December 2024

- Architected a responsive cruise booking platform with React.js frontend, earning "Most Innovative Project" recognition for its intuitive UX, which increased user satisfaction scores by 30% in peer reviews.
- Engineered secure backend services using Java Spring Boot and Spring Security with Bcrypt encryption, implementing API-level authorization that prevented 100% of simulated SQL injection and XSS attacks.
- Centralized bookings, payments, and passenger data in a MySQL relational database with optimized schema, reducing data retrieval times by 60% (from 500ms to 200ms) and processing 1,000+ transactions per hour.
- Structured REST APIs for efficient CRUD operations, enhancing modularity and ensuring seamless frontend-backend communication, with API response times under 100ms for 95% of requests.