

# Sri Rama Krishna Chowdary Maddipati

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## PROFESSIONAL SUMMARY

AI Engineer and Full-Stack Developer with 1 year of professional internship experience building production-grade Generative AI applications and cloud infrastructure. Currently pursuing Master's in Computer Science with a 4.0 GPA. Proven expertise in RAG pipelines, LLM orchestration, and AWS cloud optimization. Reduced infrastructure costs by 40% through strategic microservices consolidation and delivered enterprise AI training platforms serving corporate clients. Strong foundation in React, Node.js, Python, and MongoDB with a track record of building scalable, secure applications from concept to deployment.

## WORK EXPERIENCE

### Software Development Engineer Intern

March 2024 – February 2025

*Eficens Systems*

Remote

- Developed Trusynth, a generative AI training platform utilizing GPT models and Chroma DB, significantly improving onboarding efficiency for new employees by streamlining knowledge transfer and documentation access
- Designed and implemented backend services with VectorDB and integrated connectors for seamless data management, enabling efficient retrieval of unstructured company documentation
- Deployed enterprise solutions using React, AWS S3, Route 53, and VPC, ensuring secure, scalable, and high-performance operations across multiple production environments
- Led the migration of Cegma's core service architecture from Express.js to Nest.js, enhancing code organization, type safety, and long-term maintainability
- Consolidated 14 microservice containers into 4 optimized primary containers, resulting in significant AWS cost reduction and improved resource allocation efficiency
- Engineered a high-concurrency online examination platform (Assessment Portal) using Python FastAPI with AWS Cognito integration for secure OAuth2.0 authentication and RBAC
- Established automated CI/CD pipelines using GitHub Actions for seamless deployment on AWS, ensuring high availability, fault tolerance, and zero-downtime releases
- Collaborated with cross-functional teams across multiple projects to ensure seamless integration, maintain code quality standards, and deliver user-centric solutions

## EDUCATION

### Auburn University at Montgomery

Montgomery, AL

*Master of Science in Computer Science – GPA: 4.0/4.0*

Aug 2025 – May 2027

### Sasi Institute of Technology and Engineering

India

*Bachelor of Technology in Computer Science – GPA: 8.3/10.0*

Nov 2021 – April 2025

## TECHNICAL PROJECTS

### Multimodal AI Chatbot | React, TypeScript, FastAPI, MongoDB

2025

- Architected a resilient AI Orchestration Layer with a multi-LLM failover system (Gemini/Groq/Mistral), maintaining 100% service availability during API outages
- Developed a Hybrid RAG Pipeline using MongoDB Vector Embeddings and Gemini Function Calling to provide context-aware responses from both uploaded documents and real-time web data
- Engineered an asynchronous backend using WebSockets and FastAPI to manage parallel tasks including intent detection, smart-title generation, and multimodal processing
- Implemented a secure Identity Management system featuring Bcrypt password hashing, social OAuth2.0, and a custom SMTP-based OTP verification workflow
- Live Link: [ai-chatbot-frontend-yq89.onrender.com](https://ai-chatbot-frontend-yq89.onrender.com)

### Finance Manager | React, TypeScript, Express, MongoDB

2025

- Developed a secure financial dashboard with real-time KPI tracking (Net Income/Expense) and data visualization for custom date ranges

- Engineered an automated data-ingestion engine to handle bulk CSV uploads, reducing user data-entry time by an estimated 70%
- Implemented robust backend security measures, including API rate-limiting and throttling, to ensure 100% protection against automated security threats
- Built a cross-platform reporting module capable of generating dynamic financial audits in PDF, CSV, and Excel formats for personal and professional accounting
- Live Link: [finance-manager-dev.onrender.com/login](https://finance-manager-dev.onrender.com/login)

#### Dynamic Quiz Platform | *React, JavaScript, OpenTDB API*

2024

- Developed a customizable examination engine utilizing the OpenTDB API, allowing users to generate localized tests across 20+ knowledge domains and 3 difficulty levels
- Implemented a real-time state synchronization system to manage a 30-second automated question timer and progress tracking for seamless navigation
- Designed an accessible user interface featuring audio-tactile feedback and a detailed post-exam review module, enhancing the learning feedback loop
- Optimized frontend data handling to process and render complex JSON payloads from external sources, ensuring zero-latency transitions between quiz phases
- Live Link: [quiz-app-tau-rose.vercel.app](https://quiz-app-tau-rose.vercel.app)

#### Browser-Based Media Capture System | *JavaScript, Node.js, Express, MongoDB*

2024

- Engineered a screen recording engine using the MediaRecorder API, enabling high-quality video and audio capture without third-party plugins
- Implemented a multi-track stream merger to synchronize system video with microphone audio, achieving seamless 1:1 playback alignment
- Developed a secure Blob-storage workflow for local data handling, providing users with instant download capabilities and zero-latency previewing
- Architected a backend foundation using Node.js and MongoDB Atlas to manage metadata and prepare for cloud-based file versioning
- Live Link: [sriram629.github.io/Browser-Based-Media-Capture-System](https://sriram629.github.io/Browser-Based-Media-Capture-System)

#### Interactive Game Engine (Rock-Paper-Scissor Game) | *JavaScript, HTML5, CSS3*

2023

- Engineered a persistent game application utilizing the Web Storage API to manage user state across sessions, ensuring 100% data retention
- Developed a localized random-choice algorithm to power an automated opponent, handling real-time win/loss/tie calculations for 5-round matches
- Implemented dynamic UI rendering via DOM manipulation, creating a responsive feedback loop for user inputs and game results
- Optimized application logic for modularity and scalability, separating move-picking algorithms from event-handling functions
- Live Link: [sriram629.github.io/Rock-Paper-Scissors-Game](https://sriram629.github.io/Rock-Paper-Scissors-Game)

### TECHNICAL SKILLS

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**AI & Machine Learning:** Generative AI, RAG, LLM Orchestration (GPT-4, Gemini, Groq, Mistral), Prompt Engineering, Vector Databases (MongoDB Atlas Vector Search), LangChain, Embeddings, Transformers

**Languages:** JavaScript, TypeScript, Python, Java, C, C++, SQL, HTML5, CSS3

**Frontend:** React.js, Next.js, Tailwind CSS

**Backend:** Node.js, Nest.js, Express.js, FastAPI

**Databases:** MongoDB, Redis, SQL

**Cloud & DevOps:** AWS (Cognito, S3, EC2, Route 53, VPC, IAM), Docker, CI/CD (GitHub Actions), Vercel, Render

**Tools:** Git, GitHub, Postman, Jira, WebSockets, RESTful APIs

### ACHIEVEMENTS & CERTIFICATIONS

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**Competitive Programming:** CodeChef Rating 1462 (Global Rank 36064), LeetCode Rating 1447 (200+ problems solved)

**Certifications:** JavaScript (HackerRank), Python (HackerRank), CSS (HackerRank)