

Prem Sai Kota

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EDUCATION

Sreenidhi Institute of Science and Technology

B.Tech in Electronics and Communication Engineering

CGPA: **8.72/10.0** | Coursework: Data Structures and Algorithms, Object-Oriented Programming, DBMS, Computer Architecture

Hyderabad, India

Sep 2023 – Jun 2027

EXPERIENCE

RigorBase

Full-Stack Developer Intern

Hyderabad, India

Mar 2026 – Apr 2026

- Built the end-to-end closed-beta access system, including database design, Redis-backed rate limiting, and OAuth verification.
- Led migration to the v3.1 design system and refactored shared components; developed Practice, Insights, and Progress dashboards.
- Implemented learning features including mastery badges, prerequisite gating, and reinforcement quizzes.

Cloud Community Club, SNIST

Technical Head

Hyderabad, India

Nov 2024 – Present

- Built the first version of the club's website independently and continue to maintain and extend the platform serving 1,000+ campus users.
- Set up GitHub Actions CI/CD and an automated email notification service with retry logic and provider failover.
- Mentor students on web development, technical learning paths, and project work while contributing to other club engineering initiatives.

VISWAM.AI

Tech Lead Intern

Hyderabad, India

May 2025 – Jul 2025

- Built Comeback Coach, a conversational AI application using the Hugging Face Assistant Framework and Llama 3.3 70B.
- Worked on prompt engineering and multimodal prompting for AI applications developed through the Summer of AI 2025 program.

PROJECTS

Zync | *Real-Time Collaborative Workspace*

GitHub | Live

TypeScript, React, Node.js, MongoDB, Yjs, Socket.IO, IndexedDB

- Engineered real-time multi-user editing with Yjs CRDTs and Socket.IO, including presence tracking and conflict-free state synchronization.
- Built GitHub code analysis that generates React Flow architecture diagrams for existing repositories and newly generated projects; added agent chat inside the architecture view.
- Implemented offline-first persistence with IndexedDB and GitHub webhook integration for project and workflow synchronization.

ServX | *Infrastructure Monitoring and Incident Response Platform*

GitHub | Live

Next.js, Node.js, MongoDB, Redis, Supabase, Socket.IO

- Built modular monitoring services with deployment webhooks, Redis-backed services, and AES-256 encrypted credential storage.
- Implemented automated incident detection, severity-based alerting, hotfix PR generation, and real-time audit streaming with Server-Sent Events.
- Published reusable CLI and React SDK packages to npm and reduced frontend bundle size by 97.7% through code splitting and dependency optimization.

Adviser-CLI | *Local-First RAG and AI Assistant*

GitHub | npm

Python, ChromaDB, Ollama, BM25, MCP

- Built a local retrieval pipeline combining dense vector search and BM25 sparse retrieval with Reciprocal Rank Fusion for private documents.
- Designed model routing with fallback and circuit-breaker behavior across local and remote inference providers, with no required cloud database.
- Implemented an MCP server over stdio to expose local document retrieval to AI coding tools and agents.

TECHNICAL SKILLS

Languages: C++, C, Python, JavaScript (ES6+), TypeScript, SQL

Web: React, Next.js, Node.js, Express.js, HTML, CSS, REST APIs, WebSockets, Socket.IO

Data and Infra: PostgreSQL, MongoDB, Redis, Firebase, ChromaDB, Docker, Git, GitHub, GitHub Actions

AI: LLM Applications, RAG, Prompt Engineering, AI Agents, MCP, AI-Assisted Development (Cursor, Claude Code)

Core CS: Data Structures and Algorithms, OOP, DBMS, Debugging, Problem Solving

ACHIEVEMENTS

- Brainrot Hackathon - Double Track Winner:** Won both the Money Money Money and TPIA prize tracks among 1,224 participants for MemeCoin Roulette.
- JNTUH HackFusion-2K26 - 5th Place:** Placed in the top five among 230+ teams in a 48-hour hackathon.