Sanath Swaroop Mulky
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EDUCATION

Rochester Institute of Technology	*Masters in Data Science*	May 2025
IIIT, Bangalore	*PG Diploma in Software Development*	Dec 2021
JNTUH	*Bachelors in Information Technology*	May 2020

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Golang, Java

Web: Node.js, FastAPI, React

Infra & Cloud : Docker, Kubernetes, Terraform, AWS (S3, EC2, Lambda, Bedrock, RDS, EKS)

DB & Storage: Postgres, MongoDB, Redis, IPFS

APIs & Protocols: REST API, GraphQL, WebSockets

Monitoring: Grafana, Prometheus, Elasticsearch, Logstash

AI & Machine Learning: LLM, RAG, Agents, Reinforcement Learning, NLP, PyTorch, Hugging Face Transformers, OpenCV, OpenAI, LLamaIndex

Messaging & Event Streaming: RabbitMQ, Kafka

WORK EXPERIENCE

Backend Developer @ StaTwig **Hyderabad, India** **Apr 2022 - Aug 2023**

- Led a 3-member team for an open-source blockchain-based supply chain management system using **Node.js**, **MongoDB**, **Redis**, and Hyperledger Fabric.
- Moved the **MERN** web application to a multi-tenant architecture and enabled **SSO** with **Okta**, reducing deployment time to 18% of the original.
- Migrated the backend to a **NodeJS**-based microservice architecture and set up load balancing to improve scalability.
- Implemented a key-sharding mechanism for secure key storage of custodian wallets, ensuring strong security compliance.
- Created a block-archival mechanism by forking **Hyperledger Fabric** to reduce storage costs by over 80%.
- Set up fully automated CI/CD pipelines on **Jenkins** to ensure streamlined production deployments using **Docker** and **Kubernetes**.
- Created unified **Grafana** dashboards and alerts to enhance observability; integrated **Logstash** and **Elasticsearch** for easier log retrieval and monitoring.

Blockchain Associate @ NPCI **Hyderabad, India** **Nov 2020 - Apr 2022**

- Contributed to the early development of the modern, tokenized digital version of the Indian Rupee (**eINR**), serving over 4 million customers across India's largest banks.
- Collaborated with the team to implement advanced security hardening based on a VAPT report, addressing seven critical issues and over 20 high- and medium-severity issues.
- Set up inter-service communication using **RabbitMQ**, reducing the average transaction time by over 20%.
- Developed a simple **RBAC** system for the banking application, ensuring fine-grained control for different levels of users.

PROJECTS

- Motiv8.hr: An AI ATS solution with AI mock interviews. Allows companies to run multiple real-time interviews for different candidates and get instant feedback, enabling faster hiring decisions. | React, Nextjs, MongoDB, vLLM, Web Sockets, Docker
- AutoShell: A CLI agent similar to Claude Code and OpenAI Codex to perform command-line tasks using natural-language instructions | Python, ChatGPT
- RL Meal Planner: Advanced meal planner powered by RL techniques such as Q-learning to consider both taste preferences and calorie requirements. The program learns taste preferences over time and recommends accordingly | Python, CLI-based
- CryptoSense: An AI-powered cryptocurrency analysis tool that analyzes current trends and sentiment in the news to offer buy/sell suggestions | Node.js, Deepseek R1Aw

RECOGNITIONS

- **AngelHack Global Demo Day 2018 Winner** | Team Size : 4 | BuildUp | AR & VR Platform for Pre and Post Construction
- **HACK.COMS Winner |** Team Size: Solo | CANT.study | Context Aware Note Taker to aid Hard of Hearing Students @ RIT
- **Smart India Hackathon 2019 SW Edition Winner** | Team Size: 6 | PayRec | Grievance Redressal platform for MSME
- **Mozilla Firefox Hackathon 2016 Winner** | Team Size: 2 | IRTTC | Intelligent Real-time Temperature Control
- **EduHacks 2020 Winner |** Team Size: Solo | EduSign | Authenticity and Integrity management of Digital Documents