

SAMBA SIVA RAO CHATTU

Full Stack Engineer

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PROFESSIONAL SUMMARY

Full Stack Engineer with 2+ years of experience shipping production-grade web applications. Product-first thinker with a strong track record of delivering revenue-generating features, reducing operational overhead by 90%, and migrating legacy systems to modern distributed architectures at scale.

TECHNICAL SKILLS

Languages	JavaScript (ES6+), TypeScript, Python, Go
Frontend	React.js (Hooks, Context API, React Router), HTML5, CSS3, Flexbox/Grid, Redux
Backend	Node.js (Express), Python (Fast API, Flask)
APIs & Data	REST APIs, JSON, WebSockets
Databases	PostgreSQL, MongoDB, Redis,
Testing	Jest, Pytest
DevOps & Tools	Docker, GitHub Actions, CI/CD, Webpack, Vite, npm/Yarn, Git
Cloud & Infra	AWS (EC2, S3, Lambda), Linux, Shell Scripting, Microservices

PROFESSIONAL EXPERIENCE

Full Stack Software Developer | Tridiagonal Software – MixIT CFD Platform, Pune Jan 2024 – Present

- Built full-stack features with React.js (Hooks, Context, Router) frontend and Node.js/Express backend with MongoDB; implemented role-based access control, real-time job monitoring dashboards, and comprehensive activity tracking.
- Designed and maintained REST APIs for simulation job orchestration, integrating backend services with frontend consumers using TypeScript-safe contracts.
- Implemented Redux-based state management patterns across the React application for complex async UI flows including job queuing, status polling, and result rendering.
- Engineered and migrated CFD simulation execution from a monolithic server to distributed on-demand AWS infrastructure, reducing job queue times by 60% and enabling 50+ concurrent parallel simulations.
- Automated cloud workflows with Shell scripting for job orchestration, data transfer, and post-processing—eliminating 70% of manual intervention and reducing operational overhead.
- Built end-to-end revenue-generating LBM simulation module using Python (Fast API) and Node.js, contributing directly to product expansion and new customer acquisition.
- Executed zero-downtime database migration for 500+ legacy users, maintaining data integrity across MongoDB collections.
- Containerized services with Docker; set up CI/CD pipelines using GitHub Actions for automated testing and deployment to AWS.

Backend Developer | Engro Technologies Pvt. Ltd., Hyderabad

Mar 2023 – Sep 2023

- Developed and maintained REST APIs across 4+ microservices using Python (Fast API), Node.js, and Go in a production AWS environment.
- Built scheduling microservices for automated API calls and batch processing; used Redis queues to improve system reliability and reduce manual operations.
- Created analytics dashboard APIs surfacing insights from large MongoDB datasets; collaborated with AI/Data Science team to expose actionable metrics.
- Managed multi-container Docker deployments on AWS EC2.

EDUCATION

Bachelor of Technology (B.Tech.) CHE

2017 – 2021

Rajiv Gandhi University of Knowledge Technologies (APIIIT), Nuzvid