

SOMASHEKAR T

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Education

B.Tech in Information Technology

Indian Institute of Information Technology (IIIT), Sonapat

2021 – 2025

CGPA: 8.27

Work Experience

Freelance Software Engineer – Partylist

Feb 2026 – Present

React Native, TypeScript, Node.js, Socket.io, TanStack Query, Firebase

- Developed React Native features for a client application, collaborating with the client to implement and iterate on product requirements.
- Built real-time messaging using Socket.io with optimistic UI updates and automatic server reconciliation, maintaining message consistency during temporary network failures.
- Optimized React Native list rendering by reducing unnecessary re-renders and improving data fetching, decreasing list render time from approximately **800ms** to under **30ms**.
- Integrated geolocation, Firebase services, and offline caching to improve application reliability under unreliable network conditions.

Projects

Offer Fit – AI Resume Analysis Platform

[Code](#)

FastAPI, Python, Next.js, PostgreSQL, Redis, pgvector, Gemini API, Docker

- Built a full-stack application that analyzes resumes against job descriptions by combining semantic search, live company research, GitHub project analysis, and LLMs to generate tailored resume recommendations.
- Optimized asynchronous FastAPI request handling by replacing synchronous AI SDK calls with async clients, reducing p95 latency by **90%** (66s → 6.3s) and increasing throughput by **2.3×** under concurrent load.
- Implemented a Retrieval-Augmented Generation (RAG) pipeline using PostgreSQL (**pgvector**) and Gemini embeddings to retrieve semantically similar LaTeX resume examples, achieving a median retrieval latency of **306ms** while preserving resume formatting.
- Developed a GitHub Project Intelligence engine and multi-agent workflow that analyzes repositories, performs company research, validates generated content, and reduces LLM inference costs by over **90%** through model routing, response caching, and Pydantic schema validation.

Safar – AI Travel Platform

[Code](#)

Python, FastAPI, React Native, PostgreSQL, Redis, Celery, WebSockets, Docker

- Built a full-stack travel planning application that generates AI-powered itineraries, manages user trips, and delivers real-time trip updates through a FastAPI backend and React Native client.
- Built an asynchronous backend using FastAPI, Celery, Redis, and WebSockets to process long-running itinerary generation, returning **202 Accepted** responses immediately while sustaining **250 requests/sec** at **sub-45ms p95 latency** under simulated load.
- Reduced external API costs by approximately **\$210/month** through multi-layer caching across Redis and PostgreSQL for AI responses, weather forecasts, and third-party travel data.
- Implemented offline trip persistence using AsyncStorage and enforced API contracts with Pydantic models, improving reliability between the FastAPI backend, PostgreSQL, AI services, and React Native client.

Stocksy – Event-Driven Financial Platform

[GitHub](#)

Next.js, Node.js, TypeScript, Inngest, Redis, MongoDB

- Built an event-driven Node.js backend using Inngest for cron-scheduled portfolio analysis, background data aggregation, and threshold-triggered alerts.
- Implemented optimistic UI state management and Redis-backed MongoDB caching to reduce database pressure on high-frequency market data reads.
- Hardened application security with cryptographic password hashing, scoped JWT authentication, and TTL-indexed session expiry.

Technical Skills

Languages: Python, C++, TypeScript, JavaScript, SQL

AI/GenAI: LLM Integration, RAG, Agent Workflows, LangChain, pgvector, Vector Embeddings, Gemini API, Prompt Engineering

Backend/APIs: FastAPI, Node.js, Express.js, REST APIs, WebSockets, Celery, Redis, PostgreSQL, MongoDB, Supabase, Firebase, Event-Driven Architecture, Async Programming

Frontend: React.js, Next.js, React Native, Expo, Tailwind CSS, TanStack Query

Tools/Platforms: Docker, Git, GitHub Actions, CI/CD, Sentry