Chetan Bawankule
Senior Full-Stack Engineer

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LinkedIn Profile

PROFESSIONAL SUMMARY

Senior Full-Stack Engineer with 4+ years of experience architecting scalable web, mobile, and AI-driven solutions. Specialized in combining geospatial intelligence with Generative AI to build complex SaaS platforms. Proficient in the full development lifecycle using Python (FastAPI, Django), Node.js, and modern frontends (SvelteKit, Next.js). Proven track record of developing real-time mapping systems with PostGIS and MapLibre, with demonstrated capabilities in engineering autonomous AI agents for healthcare and data analytics.

EXPERIENCE

EC Infosolutions   Pune, India
Software Engineer   April 2022 – Present

- **Topsoil:** Developed an app enabling farmers to perform soil sampling using phone location tracking; visualized field boundaries, soil data, and crop history layers.

- **Farmworth:** Built a vector data management tool using **Svelte 4 + SvelteKit**. Integrated **Leaflet** and **Geoman** to allow users to draw and edit complex vector shapes (points, lines, polygons).

- **Public Farmworth:** Spearheaded the migration to modern frontend architecture using **Svelte 5 + SvelteKit**. Implemented **MapLibre** for advanced vector editing features, ensuring feature parity with the core platform.

Liftish   Melbourne, Australia (Remote)
React Native Developer   January 2021 – April 2022

- Architected the **Node.js** backend for a carpooling platform, handling complex logic for driver/passenger registration, ride creation, and fare calculation.

- Implemented geospatial algorithms for real-time driver discovery and vehicle tracking using **Google Maps API**, ensuring accurate location updates.

- Designed and optimized RESTful APIs to manage the complete ride lifecycle, ensuring low-latency data synchronization between mobile clients and the server.

PROJECTS

Doctors Assistant   *FastAPI, PostgreSQL, Pydantic AI, Next.js, Docker*
[Backend Repo] • [Frontend Repo]

- Built AI-powered medical assistant API using **FastAPI**, **PostgreSQL**, and **PydanticAI** with multi-LLM integration (OpenAI, X.AI, Anthropic) featuring automatic provider fallback, JWT authentication, and HIPAA-compliant security for patient data management.

- Developed RESTful API with async/await patterns, role-based access control, and comprehensive test coverage using **pytest**; containerized application with **Docker** and implemented **Alembic** migrations for database version control.

- Engineered intelligent AI agents for automated medical visit summarization, patient Q&A, and discharge summary generation, reducing documentation time by 80% while maintaining 95%+ accuracy through context-aware processing.

- Developed a responsive **Next.js** frontend featuring a real-time chat interface for doctor-AI interaction and dedicated dashboards for adding patients and visits.
- Implemented complete user management interfaces including secure login and registration pages, fully integrated with role-based backend security.

GeoSaaS *Django, PostGIS*
[Project Repo]

- Built multi-tenant geospatial SaaS platform enabling teams to collaboratively manage geographic data with role-based access control.
- Implemented **PostGIS** spatial queries, bounding box filtering, and GeoJSON bulk import for efficient handling of large-scale geographic datasets.
- Architected organization-level data isolation with comprehensive audit logging and automated email notifications.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL, HTML, CSS

Frameworks & Libraries: Svelte 4 & 5, SvelteKit, React, React Native, Next.js, Django

Geospatial Tech: MapLibre, Leaflet, Geoman, PostGIS, Google Maps API

Tools & Platforms: Firebase, Git, Docker, SQL

EDUCATION

G H Raisoni College of Engineering and Management   Pune, India
Bachelor of Technology (Information Technology)   August 2017 – August 2021
CGPA: 8.75