

Sarthak Agrawal

+919792972971 sarthakagrawal927 sarthakagrawal927 sarthakagrawal927@gmail.com

EXPERIENCE

Software Engineer

Feb 2025 – Present

VaultWealth (Peak XV)

- Created a Financial Planning Service (**Go**, **MySQL**) & wrote proprietary logic to calculate clients' financial health score.
- Migrated multiple workflows to **Temporal**, eliminating 90 % of unexpected failures & freeing engineering 3 hrs/day.
- Transitioned webapp from **MUI** to **Tailwind**. Built multiple responsive frontend components using **React**.

Software Engineer

Jan 2022 – Jan 2025

Front.Page (YC S'21)

- Developed real-time pipeline for stock data using **Go**, **Kafka**, **ProtoBuffers**, helped DAU going from 15k to 200k in 14 weeks.
- Integrated vector-powered personalized feeds using **BERT** Embeddings, **GPT** calls, **Milvus** as vector DB, resulting in 40% more engagement in home feed. Created a pipeline with real-time events from **BigQuery** for richer user vector.
- Built multiple (support, learning, assistant) **RAG** based chatbots using **OpenAI** APIs. Moderation bot ended up reducing human intervention in support queries by 90%.
- Wrote microservice in **Node.js** with **MySQL**(Prisma) for complete stock fundamental data lifecycle management.
- Built hot news with read/unread tracking, last visit tracking, **tripled** avg. news scroll count in 3 weeks. Used **Clickhouse** as data aggregator with **Rudderstack** as the pipeline.
- Implemented O(1) space/time complexity for retrieval of user's unread news & global notifications count using **Redis**.
- Integrated the **Razorpay** payment gateway with Node.js, resulting in new revenue source & 50% increase in overall revenue.
- Implemented queue-based batching, improving database efficiency and reducing load. Optimized user session handling with granular controls, reducing session refresh DB calls by 92%.
- Improved SEO performance by reducing HTML build & load time from 600ms to 60ms by caching using **Redis**.
- Incorporated **FCM topic-based notification**, reducing delivery time by 90% & increasing delivery rate by 30%.
- Planned & integrated real-time stock ticks using **Socket.io** with 3 modes: a) room-based architecture, b) in-memory or c) **Redis** for user subscription management. Connected with the web via window events.

SKILLS

- **Languages:** JavaScript/TypeScript, Golang, Python
- **Databases & Data Tools:** MySQL, PostgreSQL, Redis, Elasticsearch, Kafka, Clickhouse, Milvus, Bigquery
- **Cloud & DevOps:** AWS, GCP, Docker, Kubernetes, Prometheus, Temporal, GenAI

PROJECTS

Stumble - Social App | *Node.js, PostgreSQL (with PostGIS), Redis, Docker, AWS, Flutter, Astro, Python*

- Launched a platform to help users connect with people nearby, encouraging meaningful in-person interactions.
- App supported real-time chat, location-based profile filtering, face recognition, google auth, push notifications

SignificantHobbies - Life Management App | *Next.js, Golang, PostgreSQL, Docker, AWS, Tailwind*

- Launched a personal productivity app to manage tasks, habits, food logs, journals, and schedules.
- Designed custom form validation, schedule generation based on user preferences & efficient CRUD operations.

PlayWordle - CLI Puzzle Solver | *Golang*

- Devised a CLI application to solve *New York Times* Wordle puzzles with over 97% success rate.

EDUCATION

Manipal Institute of Technology

Aug 2018 – July 2022

B.Tech in Computer Science Engineering

- Relevant Coursework: Algorithms, Data Structures, DBMS, OOP, Operating Systems, Computer Networks
- Projects: Multiple internal portals including Letter of Recommendation, Placement, College Fest & Library Management.
- Technologies Used: HTML, React.js, Next.js, SCSS, Chakra UI, Node.js, GraphQL, Prisma, MongoDB, PostgreSQL, AWS S3