Sarthak Bharadwaj

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SUMMARY

Software Engineer with 2+ years of full-time experience building high-throughput distributed systems and real-time data pipelines. Scaled platforms to handle 800K+ messages/sec across 400K+ producers. Skilled in full-stack development, cloud infrastructure (Kafka, Kubernetes, Azure), and LLM-powered tools for end users.

EXPERIENCE

Motorq — Remote
Software Development Engineer (Full-time + Internship) — *May 2022 - Current*

- **Built high throughput, low latency, real-time vehicle data streaming pipelines**: Using various techniques like Kafka, push consumers, API pollers, etc. **Scaled to handle a throughput of 800,000+ telemetry messages per second for 400,000+ vehicles**. Collaborated with external OEM teams, including General Motors, Ford, Toyota, and more.
- **Built workflow-based systems to automate vehicle consent and enrollments**: Fully eliminated manual effort resulting in an **improvement of over 90%** in the time taken to onboard vehicles into the system.
- **Led the development of an LLM based Fleet Manager agent**: Enabled customers to interact with our systems and their data using Natural Language instead of SQL and APIs.
- **Implemented Geo-Spatial Clustering**: Used algorithms like DBSCAN & Grid based with tools like PostGIS to cluster vehicle locations and display in the portal. Resulted in **sub 1 second processing times to cluster over 100,000+ vehicle locations**.
- **Scaled the logging & tracing pipeline to support over 60,000+ log writes per second**: Implemented a distributed ELK stack system, along with techniques like sharding, data streams, indexing, etc.

Nearcast — Remote
Software Consultant — *October 2021 - February 2022*

- **Implemented WebRTC video & audio conferencing features**: Enabled users to have real-time & smooth calls with other users.
- **Refactored the codebase to a monorepo**: Increased the scalability and maintainability of the codebase. Enhanced cross-team code reusability, thus **increasing overall velocity of the team by approximately 20%.**
- **Led new and improved features for the Nearcast social-media platform**: Along with the Nearcast Business Portal and the Administrative Portal of the platform.

Trademarkia — Remote
Software Consultant — *August 2021 - October 2021*

- **Led the frontend development of the Trademark Perfect platform**: Used by **100+ consumers** with very high customer satisfaction metrics and exceptional feedback.
- **Developed the Trademarkia Recruitment Portal**: Included a web based IDE along with an online judge, used to execute the candidates' code on 500+ test cases in 30+ languages. **Scaled up to 3000+ concurrent users** simultaneously giving the recruitment test on this portal.

EDUCATION

Vellore Institute of Technology — Vellore, India
Bachelor of Technology - Computer Science & Engineering; GPA: 8.53/10 — *2019 - 2023*

SKILLS

Languages	Typescript/Javascript, Python, C++, Java
Web & Frontend	NextJS/ReactJS, Tailwind, HTML, CSS, UI/Component Libraries, Bundlers
Backend & APIs	NodeJS, ExpressJS, SQL, NoSQL, Flask, Django
Cloud & Infra	Azure, Kubernetes, Snowflake, Kafka, Redis, GitHub Actions, Azure DevOps
Tools	Git, Postman, Linux, Scrum Agile, Jira

ACHIEVEMENTS

- **AIR 3 and World Rank 88** in **Google Hash Code** Qualification Round — *Certificate*
- **AIR 82nd** in **ACM ICPC Gwalior-Pune Regionals** — *Certificate*
- **AIR of 304** in **ACM ICPC Amritapuri Regionals**