Panth Patel

Software Engineer

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in https://www.linkedin.com/in/panth-patel-447a88240/

◆ https://blogs.whiteloves.in/   📅 10 Dec 2001

⬛ https://jsr.io/@panth977   🔗 https://panth.whiteloves.in/

▶ https://www.youtube.com/@panthpatel4870

🪪 Profile

Backend Engineer with 3+ years of experience in designing robust, scalable, and high-performance systems. Proven expertise in backend architecture, schema-safe APIs, and cache-safe infrastructure, handling massive scale—over **518M+ data points and 60M+ API requests per day**.

Skilled in building advanced features like **real-time heatmap services**, **request-based logging systems**, and **custom developer tools**. Passionate about developing compilers to make my life easy, while leveraging AI to dump obvious code that I am going to write (auto complation, I don't like full on vibe coding, but a balance between human intelegence and LLM).

Driven by continuous improvement and innovation, I balance **core language principles** with practical, modern engineering—ideal for building **long-term, scalable, and maintainable systems**. Experienced in mentoring developer both "vibe coders" and those keen to understand the "why and how" behind technology.

💼 Professional Experience

Oizom PVT LTD

Senior Developer   04/2025 – Present | Ahmedabad, India
- Frontend Lead, Reremping the existing website into **SvelteKit** Making things **10x** faster
- Leading the entire Software Team of **10 people** including me, Understanding Product Requirements along with **Task allocation, RnD & POC**
- Weekly **Know Your Product** sessions, along with a **Tech Problem Brainstrom** for any one to solve and share there findings.
- Defining a proper **KYP & KT documents** to reduce over processing and "Figuring out" sessions.
- **Understanding the Requirements** this can be features, performance, or just overall vage features.
- **Solving the Requirement** on whiteboard along with wireframe.
- **Creating Tasks** we use zoho projects, but the idea is simple, plan out things.
- **Assign the Tasks,** managing the team as well.
- **Helping Out** till here everything is easy, untill coding starts, and my experties comes in help to my colleagues.

Full stack   02/2024 – 04/2025 | Ahmedabad, India
World's Leading Air Quality Monitoring IoT Company
- Spearheaded the **complete backend infrastructure**, processing **518M+ data points daily** and handling **60M+ client requests/day (~600 req/sec)** with HA and DC/DR approch to reduce the throttling.
- **Revamped backend from scratch**, reducing code size by **30%** for better maintainability, resulting in fewer bugs and faster development cycles.
- Cut down microservices from **15 to 3**, streamlining architecture and reducing infrastructure cost by **40%**.
- Built **robust caching layer** for 3 core use-cases with **DB-driven cache invalidation**, eliminating stale data overhead.
- Architected a **"One request = One DB query / Transactional"** model, cutting down DB calls by **70%**, boosting performance by **20%** (without relying on cache).
- Implemented **type-safe schema-driven API contracts**, auto-generating **Swagger docs** and **typed SDKs** for frontend integration.

- Designed a **Cassandra-based request-scoped logging system**, enabling full traceability and audit of every request lifecycle.
- Migrated **heatmap generation** from batch cron jobs to **on-demand GoLang service**, resulting in **100x faster response times**.
- Reduced total infrastructure resource usage by **75%**, transitioning to optimized **VM/Cloud setups (GCP -> DigitalOcean)** with fewer CPU/RAM resources, same performance.
- Created **Docker Compose environments** for seamless local/on-prem deployments by partner companies.
- Developed **Display V2 Module** with an intuitive **drag-and-drop UI**, enhancing client-side configurability and user experience.

When your own boss praises you behind you back, then I will definitely brag about it! "I am tired of these devs, I have to do the heavy lifting. Panth is the best—I don't have to worry about anything in the backend..." (translated from gujarati 😅)
— **Sohil Patel**, CTO @ Oizom (sohil@oizom.com ⧉)

Tech Stack: Node.js, Express, GoLang, Python, PostgreSQL, Cassandra, Redis, GCP, DigitalOcean, Docker, Docker Compose

GENUIN INC, *Software Engineer I*   05/2023 – 01/2024 | Ahmedabad

Techstack: Node.js, Express, Postgres, Mongo, Aerospike, React.js, Next.js
- Optimized 24k lines of code to 19k, adding 10k+ lines of new features.
- Enhanced database query performance by 30%-70%.
- Revamped a project to support 5k+ users/sec with minimal resources.
- Created 5+ different developer tools to better stream line the developer experience.

TECH CRISTA, *Junior Developer*   10/2022 – 02/2023 | Remote
- **Techstack**: Node.js, Express, Sockets, Puppeteer, MySQL, React Native.
- Developed 35+ bots for various actions and web scraping, including 10 SSO login bots.
- Optimized bot login, cutting down the process from ~5min to 1min.
- Introduced a bot detect-process approach, reducing code by 30%.
- Standardized bot-client communication using "Server Driven UI", simplifying from 50 cases to 4 core widgets.

VARDAYINI DAIRY PRODUCTS, *Full Stack Engineer*   10/2021 – 07/2022 | Remote
- **Techstack**: Node.js, Express, Firebase Auth, Firebase Storage, Firebase Firestore, Firebase Functions, Flutter, React.js
- Developed a product meeting business needs, saving 3 hours daily in company notary processes.
- Designed efficient UIs for rapid data entry, managing 5k+ entries daily.
- Created 4 distinct apps addressing various use cases.

📖 Publications

@panth977, *JSR* ⧉
- Goal: to making Backend projects easy integratable.
- A light wt. package that has cross integrations with zod to make your functions and apis runtime schema safe.
- Cacheing Techniques to make, it function outputs easy cache
- A Optimized version of Promise

Heatmap x100 faster, *Hashnode* ⧉
- Goal: how do make it faster, cheaper & realtime!
- Project transition Python → Browser JS → Node JS → GoLang
- How to partially memoize and memory effecient JS structures

1mil+ DataPonits in NodeJs, *Youtube* ⧉
- Goal: to make NodeJs functional and optimized for millions of datapoints!
- Making use of Array Buffers to optimize everything
- Hideing away the complexity behind a simple interface

📁 Projects

Town Plan Map, *Integrating google map with gov. TPs & broker's sites & builder's projects* ⧉

- *Techstack*: Svelte.kit, Airtable

My Next Tournament, *Booking Turfs & listing and orginizing tournaments.* ⬀

- *Techstack*: React.js, Firebase Firestore, Firebase Auth, Firebase Functions, Node.js, Express.js, Razor Pay

Huddle And Score, *Live striming a local tournament with score board.* ⬀

- *Techstack*: Svelte.kit, Tailwind, Firebase Firestore, Firebase Auth

🌱 Skills

Algorithm Optimization, Design, *Design system and principles for maintainence of code.*

Principle, *Server driven UI, Programatic Static Site, Backend.*

DB structure & Queries, *Cassendra, Sql Postgress, Aerospike, Mongo, Firestore*

Services, *GCP, Aiven, AWS, Firebase, Vercel, Upstash, Appwrite, Digital Ocean, Docker & Docker Compose & Docker Swarm*

🏅 Awards

Technothlon Halts - 2018
(Round 1) All India Rank 5

International Olympiad of Science - 2018
(Lv.2) State rank 18, AIR 189, 62.723%
(Lv.1) State rank 21, AIR 518, 48.502%

International Olympiad of Mathematics - 2015
(Lv.1) State rank 208, AIR 8877, 37.773%

B-TECH CSE - 2019 - 2022
Ahmedabad University

International Olympiad of Mathematics - 2018
(Lv.2) State rank 29, AIR 333, 43.046%
(Lv.1) State rank 18, AIR 274, 50.049%

International Olympiad of Science - 2015
(Lv.1) State rank 41, AIR 3670, 70.555%

Regional Math Olympiad - 2015
(Round 1) Scored 74 out of 100

JEE MAIN - 2019
96.70 %