

Joel Samuel Raj A

Immediate Joiner (No Notice Period)



Software Engineer delivering end-to-end API and UI features independently. A polyglot and T-shaped generalist with depth in Full-Stack development and breadth across DevOps, GenAI, and SysAdmin. Continuously employed from Apr 2022 - Present; currently consulting with early-stage startups and on a career break to master DSA and System Design.

Skills

Programming languages: Javascript, Typescript, Python, Go, C, C++, Java, Dart, Bash, Rust.

Tools: Nest.js, Linux, Nix, Docker, Git, Github, Nginx, Firebase, NoSQL, SQL, Redis, AWS, Langchain, Langgraph, Grafana, React, React Native, Next.js, Flutter.

Soft Skills: Teamwork, strong ownership, high code quality standards, peer mentoring.

Experience

C1Exchange Software Engineer

Aug 2024 - Jun 2025 **11 months**

- Uplifted the whole API team by authoring 10+ internal blogs and sessions on DDD, advanced TypeORM, Node.js (ALS), Nest.js, SOLID and DRY principles — using real codebase and achieved a visible increase in the team velocity.
- Team Lead for the company's largest React.js project. Owned the strategical shift from decade long investment in Angular to React.js, built the company's first React team from ground up, acted as React.js Subject Expert org-wide.
- Defined the company's first base template for UI (Angular, Next.js), API (Nest.js) and introduced the company's first internal styleguide using eslint, stylelint, commitlint, GitHub actions, husky commitizen and documented all.
- Senior IC and code reviewer on the company's most critical client project — owning UI (Angular), API (Nest.js), DevOps, and release management across the full stack from 0 -> 1, cross collaborated to streamline the development.
- Architected and owned rules engine for campaign product line breakout, automating 15-year manual process through segmentation logics across 5+ dimensions (audience, geo, etc), and an SLA rules engine for the campaign lifecycle.
- Implemented IaC using CloudFormation for the entire application infrastructure - provisioning all the environments.
- Independently delivered a full-stack multi-agent campaign builder platform from natural language and file inputs with Tool Calls, LLM-token and tool call streaming, validation layers and Gen-UI using React, Langgraph, and Nest.js.
- Built Keycloak plugins (Java) to relocate misplaced auth logic from API services, restoring the separation of concerns.

A2A Point L.L.C Founding Engineer (Full time Contractor)

Mar 2024 - Aug 2024 **6 months**

- Successfully completed the contract by consistently exceeding expectations, delivering beyond the defined scope.
- Single-handedly engineered the entire technological infrastructure of the business and the products.
- The project includes apps deployed [Play store](#) and [App store](#), CMS solutions for admins and users, newsletter, user courses, blogs, MFA, in-app ads, payment gateways (Stripe), real-time chatting, push notifications, and much [more](#).
- Designed a fully containerized architecture, deployed on Portainer with a self-hosted Nginx Proxy Manager, Gitea - enabling private NPM packages, Docker registries, Gitea actions for CI/CD, for extremely low cost infra in mind.
- Engineered rapid development of web app and mobile apps through a unified codebase [checkout blog post](#).
- Integrated Playwright with CI/CD, enabling automated testing with Gitea Actions and dedicated QA instances

Tvarit GmbH Software Engineer

Nov 2022 - Feb 2024 **1 year 4 months**

- Note: Designated as an intern due to college policies, [took the full responsibilities of an SWE I, see official statement](#).
 - Worked part-time as a Software Engineer from Nov 2022 - Aug 2023 (10 months) during academic sessions.
 - Transitioned to a full-time role from Sep 2023 - Feb 2024 (6 months), with onsite in Pune during the final year.
- Maintained our internal fork of Grafana and added features like - custom emails, notifications, alerting strategies.
- Developed a plugin for Grafana that completely changed the way frontend customization is done in the company. Previously, the HTML panel was used for custom UIs. The new panel dynamically renders React components at runtime with TailwindCSS, enabling much faster UI development. Soon [open sourced](#) it.
- Hands-on experience in the AWS infra with Lambda, S3, CloudFront, API Gateway, RDS, EKS, CloudWatch, SNS, SQS, IAM; Notably - refactored every Lambda function to a single codebase and deploying it with CloudFormation.
- Built a queuing service for a proxy API that prefetches on our middle server (AoT), reducing latency by up to 100%.

Achievements

- Contributor in [expo.dev](#), [directus.io](#) - notably made improvements to the websocket auth [PR 22888](#).
- Member in [catppuccin organization](#). Notably, [catppuccin for flutter](#) - ports the catppuccin color scheme to flutter.
- Won the state-level Dr. A.P.J Abdul Kalam young achiever award for my contributions at TNEA, Govt of Tamil Nadu.
- Core member in [Foss United Chennai](#), volunteer in [Chennai React](#) and regular speaker in FOSS meetups in Chennai.

Internships

TNEA Online, Govt of Tamil Nadu FullStack intern

Apr 2022 - Sep 2022, **6 months**

- Developed a fullstack application for 500+ colleges to submit Govt.-sanctioned student intake with documents for the 2022 academic year.
- Implemented authentication with mandatory password reset, automated seat allocation by calculating management and Govt. counseling seats per category, enforced form validations, and added features like document upload, save as draft, and printable intake tables.
- Streamlined manual data entry of 200,000 seats and 2000 documents, replacing the postal process with a secure online 2-step submission system.

Designation Agency Full stack developer consultant

October 2022, **1 month**

- Designed and developed a portfolio website for a digital agency with CMS-backed project management, enabling stakeholders to independently update content and zero cost infrastructure in mind - using free services.

Coding club gct Board Member

Aug 2022 - Jan 2024, **1 year 6 months**

- Transformed the cloud lab by installing Proxmox and setting up various services like Jellyfin, Coolify, OpenNAS.
- Led the architecture of redesigning the 15 year old Network Infrastructure of the entire college campus using GNS3 and recommended using pfsense for the firewall.
- Independently developed:
 - ▶ **Coding club mono repo**: The monorepo contains 5 Next.js apps and 1 package published [npm](#) that showcases our club's integrity in uniform design, code style, theming, maintaining an internal tech stack, and much more.
 - ▶ **Algotab**: Leetcode-like platform built using Monaco editor that's powering VS Code and a custom judge system that supports compilation of 6 different languages with LSP support. Self-hosted in our Proxmox instance and used in conducting foolproof semester examinations.
 - ▶ **Custom nix configuration**: Developed a custom Nix configuration to manage all computers in our computer labs. Earlier developed a custom [Arch-based distro](#) using Archlive, (archived in favor of Nix).

Projects

Golox: Go implementation of the lox-language interpreter from the amazing book [crafting interpreters](#) which originally used Java. Supports all the features of the original lox language (variables, control flow, functions, classes, inheritance, scoping, closures, error handling, etc).

Blogs: Built a blog platform for our college club using Next.js RSC, where members upload markdown files to a dedicated GitHub repo, and the site automatically fetches and displays them via the GitHub API. Each blog post automatically creates a corresponding GitHub issue, where comments and reactions are stored and fetched via the Issues API, eliminating the need for a separate database.

SQLite Python implementation: Implemented an SQLite-style database following [cstack's tutorial](#), originally in C, with advanced features like B+ trees for indexing, pagination for efficient storage, and more. Supports essential operations like INSERT, SELECT, and DELETE, providing a deeper understanding of database internals.

Education

Government College of Technology, Coimbatore. (NIRF Top 100 in the Engineering Category and Tier 1 state college)

B.Tech in Information Technology

2020 - 2024

CGPA: 8.64