VIGNESH V

Team Lead | Senior Full Stack Engineer

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PROFESSIONAL SUMMARY

Team lead with over four years of experience building and owning enterprise SaaS products end to end. I lead an engineering team at Simplify3x, own architecture and releases, and stay hands-on across React, Angular, Node.js, Python and Kubernetes. My recent work includes a realtime collaborative documentation platform, large data migrations for enterprise clients, and AI features in production such as LLM agents, RAG and MCP.

TECHNICAL SKILLS

Leadership	Team leadership, architecture planning, sprint planning, code reviews, release management, client-facing delivery
Architecture	Microservices, multi-tenant SaaS, event-driven systems, API design, RBAC, SSO (SAML, OIDC, JWT), realtime collaboration
Languages	TypeScript, JavaScript, Python, SQL
Frontend	React, Angular, Next.js, Redux, Zustand, Tiptap, Yjs, Tailwind CSS
Backend	Node.js, Express, FastAPI, REST, WebSockets, Socket.IO, RabbitMQ, BullMQ
Data	MongoDB (change streams, aggregation), PostgreSQL, Redis, Qdrant, pgvector
Cloud & DevOps	Kubernetes (EKS, AKS), Docker, Jenkins, GitHub Actions, Azure, AWS, Nginx, Linux
AI & LLM	LLM agents, RAG, embeddings, vector search, MCP, guardrails, OpenAI, Azure OpenAI, Anthropic

PROFESSIONAL EXPERIENCE

Simplify3x Software, Bengaluru | Team Lead — Nov 2023 – Present

- Lead the engineering team on SimplifyQA, an enterprise test automation platform used by banks, insurers and healthcare companies. I set the technical direction and run sprint planning, code reviews and production releases.
- Planned service boundaries and API contracts for the microservices platform and took product features from design through release and production support.
- Set up RabbitMQ processing for long-running workflows and standardised REST contracts and front-end state across teams, which cut rework by about 40%.
- Delivered the platform's AI features, including an internal RAG assistant that cut document search time by about 60%.

Kandra Professionals, Bengaluru | Software Engineer — Dec 2022 – Nov 2023

- Built and maintained three production web applications used by around 1,500 active users, working with React, Redux and Node.js.
- Reorganised the front end into modular components with client-side routing and a central Redux store, which brought average page load time down by about 30%.
- Integrated more than eight third-party REST APIs through a shared service layer with proper error handling and retries, and kept Jest coverage on shared utilities at around 75%.

PROJECTS

SimplifyQA: Enterprise Test Automation Platform

Simplify3x | Angular, Node.js, MongoDB, Redis, RabbitMQ, Socket.IO, Kubernetes

- **What:** Simplify3x's core product, a no-code test automation platform for web, mobile, API, desktop, SAP and mainframe applications. It is used by banks, insurers and healthcare companies, either as SaaS or installed in their own cloud.
- **How:** Worked across the Angular front end and the Node.js microservices (gateway, project, test, execution, reporting, scheduling and integration services) running on MongoDB, Redis and RabbitMQ in Kubernetes. Built the drag-and-drop workflow canvas with Gantt and timeline views, much of the defects and reporting modules including PDF export, and faster live streaming of test steps during execution.
- Rebuilt the Azure DevOps integration with durable webhooks, pause and resume for syncs, and a preflight self-test, extended two-way Jira sync, and built the team's shared Angular rich text editor library.
- **Value:** 15+ enterprise clients design and run test workflows without writing code, and background processing handles more than 5,000 jobs a week. I have made more than 1,500 commits across 19 service repositories.

Scroll: Realtime AI Documentation Platform

Simplify3x | Team lead | React, Tiptap, Yjs, Node.js, PostgreSQL, pgvector, Redis

- **What:** A Confluence-style workspace inside SimplifyQA for test plans, release notes and runbooks. Pages can embed live test cases and reports, and users sign in with their SimplifyQA account, so customers do not need a separate wiki.
- **How:** Realtime co-editing with Tiptap and Yjs (Hocuspocus), kept in sync across server pods through Redis. The Express and PostgreSQL back end has around 310 endpoints and 52 tables, with role-based access, version history with page diffs, and import from Word, PDF, Notion and Confluence.
- AI features include hybrid search (full text plus pgvector), question answering over a team's spaces, an AI writing assistant, and AI-generated slide decks.
- **Leadership:** Planned the architecture and sprints, reviewed and merged the team's work, and wrote about 40% of the code myself. Fixed a cross-tenant SSO flaw and a private space access bug over WebSockets, solved lost edits during simultaneous editing (only 1 of 4 edits survived before the fix, all 4 after), and set up more than 360 automated tests with a 60% coverage gate in CI.

Legacy to Microservices Data Migration

Simplify3x | Node.js, MongoDB, Docker

- **What:** A tool that moves customers from the legacy SimplifyQA, which kept everything in one database, to the new microservice platform with separate project and test management databases.
- **How:** Built a **31-step pipeline in 8 phases** that streams data in batches with memory-aware garbage collection, maps old IDs to new ones, and can safely be re-run. Mapped **438 legacy automation actions** onto the new templates, and wrote reconciliation reports in Excel that compare old and new data, along with scripts to repair or roll back skipped records.
- **Value:** Designed to handle millions of records in a single migration, including up to **200,000 test cases and 1 million test steps**, with no data loss on core entities and historical execution reports kept for audit. Used across 12+ client programmes, and I am the top contributor on the codebase.

SimplifyQA AI Assistant

Simplify3x | Python, FastAPI, Qdrant, vLLM, RabbitMQ

- **What:** A chat assistant in the SimplifyQA platform that answers questions on sprints, test runs, defects and coverage, with live charts.
- **How:** An LLM agent that picks one of **106 typed tools** instead of writing database queries itself, hybrid search on Qdrant with reranking, and a real-time indexing pipeline from MongoDB change streams through RabbitMQ. I also built the self-hosted model server on vLLM and Qwen3-8B, with Azure OpenAI as a fallback.
- **Value:** Answers that used to need a manual report now take seconds. It can be deployed fully on-premise for regulated customers, with customer data isolation and hallucination checks built in.

ClubAdmin: Sports Academy Management SaaS (clubadmin.domainrental.in)

Personal product | React, Node.js, MongoDB, Docker

- Designed, built and sold a multi-tenant SaaS for sports academies, covering role-based access, member management, attendance and payments, deployed with Docker and Jenkins CI.
- **Value:** Sold three commercial licences and earned recurring revenue from the first release.

EDUCATION

Master of Computer Applications (MCA), IGNOU — 2023 – 2026

Bachelor of Computer Applications (BCA), St. Francis College, Bangalore — 2018 – 2021