

Allan Jeo Joseph

Principal Software Engineer | Agentic AI, RAG & MCP | Full-Stack Engineering

Mumbai, India (Remote) | allanjeo95@gmail.com | linkedin.com/in/allanjeo | github.com/raveracker

PROFESSIONAL SUMMARY

Engineer at heart, builder by obsession - I love the craft, and I love the problem more than the stack. 6+ years shipping production-grade applications, now operating as a Principal Engineer at the intersection of software engineering and AI. I design agentic architectures, RAG pipelines, and MCP-powered tool ecosystems that autonomously build, test, commit, and ship - collapsing what used to take teams weeks into hours. Deep full-stack foundation across React, Next.js, React Native, TypeScript, Node.js, Python, MongoDB, and Infra (GCP, AWS), with proven ownership of design systems, multi-brand architecture, and mentoring engineers. Research-driven - I bring new paradigms into production daily, from multi-agent orchestration to zero-knowledge proof systems, and I give much of it back as open source: MIT-licensed npm packages and developer tooling I publish and maintain. I think like a founder: align fast to vision, optimize for velocity, and treat every sprint like it matters.

PROFESSIONAL EXPERIENCE

Principal Software Engineer - Procedure Tech

Mumbai, India (Remote) | July 2021 – Present

Lead AI-native development, agentic architecture design, and full-stack platform engineering across multiple client products.

RoomAngel Foundation (ValueVerse.co) - Forward Deployed Engineer | Product: Hive (Current)

- Build AI-native infrastructure and agentic harnesses for hospitality operations across both frontend and backend.
- Integrate third-party hospitality platforms (Opera Cloud, MyCloud) with full multi-tenancy support.
- Delivered features that surface hotel revenue and revenue-center insights through a natural-language chat interface.
- Built custom agents implementing agentic looping to automate repetitive chat-driven tasks.
- Authored custom agents, skills, hooks, and orchestration so a single command implements an entire feature across backend, frontend, and infrastructure.
- Reduced feature delivery from weeks to 2–3 days at 98% accuracy with zero rework.

Tech: Agentic AI, MCP, Multi-Agent Orchestration, RAG, Claude Code, Python (FastAPI), TypeScript, Next.js, React, Node.js, MongoDB, Cloud Infrastructure, Opera Cloud API, MyCloud API, Multi-Tenancy

BrightlifeCare (HealthKart) - System Architecture & Design System Migration

Products: HealthKart, MuscleBlaze, Gritzo, FuelOne, TrueBasics, HK Vitals, Ronnie Coleman, Incredio, Smash

- Architected a multi-brand React component library with dynamic theming across 9 product lines.
- Built on atomic design principles with Tailwind CSS, Storybook documentation, and full accessibility (a11y) compliance.
- Designed RAG pipelines, multi-agent orchestration, and MCP integrations to accelerate component development.
- Authored custom agent skills (.claude/skills/) encoding architectural patterns, coding standards, and domain knowledge, enabling AI agents to generate context-aware, production-ready code with minimal human intervention.
- Implemented guardrails and a knowledge dependency graph to enforce architectural consistency, reducing token usage by 70%.
- Engineered a plug-and-play design system, eliminating per-product manual overrides across all 9 products.
- Optimized Core Web Vitals, improving page load times, SEO, and Google ranking signals.
- Led and mentored developers on the shared architecture, with unit and end-to-end test coverage.

Tech: React, TypeScript, Tailwind CSS, Storybook, Vitest, Playwright, RAG Pipelines, MCP, Multi-Agent Orchestration, Agent Skills, Claude Code, Atomic Design, Core Web Vitals

Pine Labs - Payment Services

- Implemented a white-labelling feature supporting partner theming (CITI Bank), reducing theming setup time through a standardized global SCSS architecture.
- Mentored a junior engineer and managed execution of incoming features across sprints.

Tech: React, SCSS, JavaScript, CSS Custom Properties, Git

Bitespeed - Multichannel Marketing for Shopify Brands

- Built a Web Push and Mobile Push Notification service end-to-end on AWS Serverless, handling broadcast notifications and webhooks at scale.
- Engineered multi-vendor configuration handling and cron-based template fetching for broadcast messaging.
- Created a React Native mobile SDK for FCM push notifications on the Shopify mobile app.
- Developed a Lambda Authorizer securing all REST and Lambda API endpoints.
- Built a Postmaster tool for automated domain verification in email broadcast workflows.

Tech: AWS Lambda, Serverless Framework, React Native, FCM, Node.js, Cron, REST APIs, Shopify API

CommandK - Secrets Manager (Cybersecurity)

- Built reusable frontend components for the Secrets Manager platform.
- Created a JSON-driven dynamic form generator with auto-generated validations via a custom transformer.
- Implemented Playwright end-to-end testing in Docker for automated regression coverage.

Tech: React, TypeScript, Playwright, Docker, JSON Schema

Paytm - Bank Statement Analysis, Free Credit Score, E-Raktkosh, Internal Tools

- Owned frontend development for Bank Statement Analysis and Free Credit Score, managing a team of 3 developers.
- Resolved performance bottlenecks, improving application scalability and load times.
- Built the E-Raktkosh mini app (government blood donation platform) end-to-end as sole developer.
- Shipped bug fixes and new features on Paytm's internal admin panel.

Tech: React, JavaScript, HTML, CSS, REST APIs, Performance Optimization

Treebo Hotels - Hotel Superhero (Hotel & Restaurant Management)

- Implemented frontend features and bug fixes on the POS system.
- Built a thermal printer integration proof of concept using WebSockets with multi-printer network configuration.

Tech: React, JavaScript, WebSockets, Thermal Printer SDK, POS Systems

Senior Mobile Development Engineer - DocMyDoc

Bengaluru, India | November 2020 – June 2021

- Developed and deployed the iOS app to production and executed a full UI refresh across Android and iOS from Figma designs.
- Built a custom web viewer component for unified image and PDF document viewing.
- Delivered key features including a COVID-19 vaccination tracker, vitals tracker, document upload, and action sliders.
- Owned release management (build, test, deploy) for both platforms with regression test coverage.

Tech: React Native, JavaScript, iOS (Swift, Xcode), Android, Figma, Firebase, PDF.js, Regression Testing

Technical Associate - Trabacus Technologies Pvt Ltd

Bengaluru, India | March 2020 – November 2020

- Built an Instagram Story clone for the social media module integrated with the BookNGogo travel platform.
- Developed cross-platform mobile apps in React Native using Redux, React Navigation, and gesture animations.
- Managed release builds for Android and TestFlight (iOS); diagnosed and fixed performance bottlenecks.

Tech: React Native, Redux, React Navigation, JavaScript, Android, iOS (TestFlight)

Project Manager & React Native Developer - Adinav Labs Private Limited

Bengaluru, India | April 2019 – March 2020

- Built reusable UI components in React Native for the Kafezz and Protia apps; configured AWS infrastructure (S3, SES, SNS).
- Managed a development team to deliver milestones on schedule and owned release management for Android and iOS.

Tech: React Native, Firebase, AWS (S3, SES, SNS), JavaScript, Android, iOS, Release Management

PERSONAL PROJECTS

Figma Code Composer - github.com/raveracker/figma-code-composer

- Published npm package (figma-code-composer / fcc): a multi-agent orchestration scaffold that turns Figma designs into fully typed, framework-native frontend components for React, Vue, Angular, and Svelte.
- Pipeline emits design tokens, components, icons, Storybook stories, and tests from a single config.json, using a built-in knowledge graph that reuses components across screens instead of generating duplicates.

- Features complexity-based model routing (Haiku, Sonnet, Opus tiers), an append-only knowledge-graph ledger with RAG similarity retrieval, per-run handovers for context rehydration, and a 15-step setup wizard with a hard Figma-MCP reachability gate.
- Runs from both Claude Code and Cursor off one config; 137 bundled skills, MIT licensed, 2 releases.
Tech: TypeScript, Python, Node.js, Figma MCP, Multi-Agent Orchestration, Claude Code, Cursor, Knowledge Graph, RAG, CLI Tooling, Storybook, Vitest, Playwright, npm Publishing

AnonCitizen - github.com/raveracker/anoncitizen

- Privacy-preserving zero-knowledge proof protocol for Aadhaar identity verification, enabling proof of identity without exposing personal data.
- Supports both off-chain and on-chain (EVM) verification; published as 3 npm packages: a TypeScript SDK, a React hooks library, and Solidity smart contracts.
- Uses Groth16 ZK proofs via Circom circuits with nullifier-based sybil resistance; 2 releases and 202 tests.
Tech: TypeScript, Circom, Solidity, Groth16 (snarkjs), React, pnpm Monorepo, Turborepo, Polygon Amoy, GitHub Actions CI/CD

ERI Tax Filing Agent - github.com/raveracker/eri-tax-filing-agent

- AI-powered agentic system automating Indian ITR tax filing for ERIs.
- Multi-agent orchestrator built on Claude routes tool calls across 6 specialized agents for authentication, return submission, DSC signing, and envelope construction.
- Includes a mock server and dry-run mode for safe testing.
Tech: TypeScript, Claude (Anthropic API), Multi-Agent Orchestration, OpenAPI 3.0, Zod, Node.js, Vitest

dotnix - Cross-Platform Nix Dotfiles | github.com/punk-raven/dotnix

- Single Nix flake delivering one shared package set and AI agent-tooling environment across macOS (nix-darwin + Home Manager), any Linux distro (standalone Home Manager), and Windows via WSL2, with a modular layout and a single rebuild alias mapping to the correct activation command per platform.
- Built an interactive cross-platform installer (POSIX install.sh and PowerShell install.ps1) that detects the target system and generates config outside the repo tree so no personal data is ever committed; covered by a hermetic PATH-masked installer test.
Tech: Nix, Nix Flakes, Home Manager, nix-darwin, WSL2, Shell Scripting (POSIX sh, Zsh), PowerShell, Linux, macOS, Claude Code, Codex CLI, Reproducible Builds, Developer Tooling

Fraudvisor - github.com/raveracker/fraudvisor

- AI-powered fraud detection platform built as a Turborepo monorepo with real-time fraud analysis.
- Full-stack TypeScript architecture, containerized with Docker Compose; 26 commits across 3 contributors.
Tech: TypeScript, React, Node.js, Docker Compose, Turborepo, pnpm Monorepo

TECHNICAL SKILLS

AI & Agentic Systems: Agentic AI, Multi-Agent Orchestration, RAG Pipelines, MCP (Model Context Protocol), Agent Skills, Knowledge Graphs, Prompt Engineering, Guardrails, LLM Integration, Anthropic API, Claude Code, Codex CLI, Cursor

Languages: TypeScript, JavaScript, Python

Frontend: React, Next.js, Redux, Tailwind CSS, SCSS, Storybook, Design Systems, Atomic Design, Component Libraries, Accessibility (a11y), Core Web Vitals, SEO, Performance Optimization

Backend & Data: Node.js, FastAPI, REST APIs, GraphQL, WebSockets, MongoDB, Firebase

Cloud & Infrastructure: GCP, AWS (Lambda, S3, SES, SNS), Serverless Framework, Docker, Docker Compose, Nix, Nix Flakes, Home Manager, nix-darwin, WSL2, Shell Scripting (Bash, Zsh, PowerShell), Reproducible Builds

Testing & Tooling: Vitest, Playwright, Git, GitHub Actions, CI/CD, Turborepo, pnpm, Monorepo, npm Publishing, CLI Tooling, Figma, Figma MCP

Mobile: React Native, iOS (Swift, Xcode, TestFlight), Android, FCM Push Notifications

Web3: Zero-Knowledge Proofs, Groth16, Circom, Solidity, EVM, Polygon

Leadership & Practice: System Architecture, Technical Leadership, Team Mentorship, Agile, Sprint Planning, Release Management, Stakeholder Communication, Open Source Contribution & Maintenance

EDUCATION

Bachelor of Computer Applications (BCA)

St. Xavier's College, Ahmedabad, India | 2013 – 2016