

Aditya Raj Panjiyara

Software Engineer • Rust, Systems & AI Infrastructure

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SUMMARY

Systems-oriented software engineer specializing in Rust and AI-infrastructure engineering — on-device knowledge-graph engines, LLM-cost-optimized tooling, and end-to-end architecture — backed by production full-stack delivery in React/TypeScript and Node.js. Works from the low level (custom Rust traits, Tauri IPC, local LLM inference) up to shipped features, with recognized open-source contributions to widely used developer tools.

TECHNICAL SKILLS

Core / Systems: Rust (custom traits, IPC), end-to-end system architecture, Tauri, knowledge graphs

AI Infrastructure: Cognee / cognee-rs, Ollama, local LLM inference, LLM cost optimization, LLM-powered tooling

Languages: Rust, TypeScript, Python, JavaScript

Web / Full-Stack: React.js, Node.js, Express.js, REST API design, responsive UI

Data & Cloud: PostgreSQL, MongoDB, AWS EC2, caching strategies, DB migration

EXPERIENCE

Jr. Software Engineer

Ainocular

2025 – Present

Mumbai, India

- Built a competitor-data aggregation pipeline for a publicly listed company, feeding cleaner inputs into pricing decisions.
- Shipped management-system features that cut paper-based workflows by 75% and streamlined internal processes.

Full Stack Developer Intern

WhatBytes

2025

Toronto, Ontario, Canada

- Built full-stack features and integrated WhatsApp notifications into Curare's customer-communication system for real-time updates, cutting reliance on email by ~1/3.
- Integrated PostHog analytics to track user behavior, supporting a 30% lift in targeted-marketing effectiveness.

Full Stack Intern

Webyapar Solutions

2024 – 2025

Remote, India

- Migrated database architecture from MongoDB to PostgreSQL, improving scalability and data consistency and reducing compute usage by 80%.
- Implemented state-management and caching strategies, improving page-load times by up to 6x.

PROJECTS

ChowChow — on-device supply-chain risk engine (Rust + AI)

- Designed the end-to-end architecture spanning the UI layer, Tauri IPC bridge, Rust core, and the Cognee memory engine's internal modules, event stream, and storage layer.
- Built a desktop-native risk engine with a local semantic knowledge graph that maps vendor dependencies, flags articulation-point SPOFs, and simulates blast-radius disruption cascades hop-by-hop — fully on-device, so sensitive data never leaves the machine.
- Extended the cognee-rs Rust engine with custom traits (**LiveGraphDb**, **TracedLlm**) that stream every graph mutation over IPC, enabling real-time visualization of the graph as it is built.
- Used Cognee as a persistent memory engine so the LLM queries the knowledge graph instead of full document context, cutting LLM API costs by ~2.5x for graph-query workloads.

Tech: Rust, TypeScript, Tauri, Cognee (cognee-rs), Ollama, Knowledge Graph

Code Cartographer — LLM-powered code documentation tool

- Built a developer tool that analyzes codebases and auto-generates documentation via LLM integration.
- Cut manual review and documentation effort by ~30%, saving roughly 15 hours per project.

Tech: Python, Gradio, LLM Integration, Modular Architecture

Pilo — full-stack food application

- Built and deployed a full-stack app with 500+ active users at 99.9% uptime on AWS EC2.
- Designed reusable, responsive frontend components and built backend REST APIs for core workflows.

Tech: React.js, Node.js, Express.js, MongoDB, TypeScript, AWS EC2

OPEN-SOURCE CONTRIBUTIONS

- **Dotenv Linter (Rust)** — Fixed an edge-case parsing bug in the SubstitutionKeyFixer logic that produced malformed .env strings, improving reliability of a developer tool used in production.
- **Openverse (WordPress)** — Improved Europeana API integration, cutting average request time from ~5s to 1.2s; recognized among the top 100 contributors.

EDUCATION

B.Tech, Computer Science — Kalinga University, Raipur

2021 – 2025

GPA: 7.8