

Vaishali Aggarwal

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Frontend Engineer · AI-Integrated Product Development · React & Next.js

SUMMARY

Frontend Engineer with **3+ years** shipping production **React and Next.js** applications, now specializing in **AI-integrated product development**. Built and deployed **RAG pipelines, LLM-powered UIs, and vector search systems** in production settings – bridging frontend craft with applied AI engineering. Author of a **10+ article** technical series on LLM architecture for engineers.

EXPERIENCE

AI Product Engineer (Independent)

June 2025 – Present

Self-Employed

Remote

- Engineered a **RAG-powered chatbot** (Python, FastAPI, LangChain) with a vector retrieval pipeline and real-time streaming responses, running in a production setup.
- Delivered a cinematic interactive sales deck for **The Dubai Mall** using **GSAP and ScrollTrigger** – a high-end, desktop-first immersive experience.
- Publishing a weekly “**Frontend to AI**” **technical series** on Dev.to (10+ articles) translating LLM APIs, embeddings, RAG architecture, and agentic AI for frontend engineers.
- Building MiraAI (in active development) – an **AI-powered developer skill tracker** (Next.js 15, Supabase vector store, LLM APIs) that turns learning activity into shareable X posts.

Frontend Developer

Oct 2024 – May 2025

Learnyst

Bangalore, India

- Architected a complete **subscription system** (trials, recurring billing, fast checkout) with **Cashfree** across React admin and Next.js learner platforms – improved payment efficiency by **40%**.
- Developed **e-Sign and compliance modules** for SEBI 2025 regulations – automating PAN verification and agreement flows, saving **60% manual effort** across **18M+ users**.
- Created a scalable **Global Search module** using the **Lit Framework** and web components, reducing search latency by **50%**.
- Aggressively leveraged Cursor AI** in production daily for development acceleration and large-scale refactoring – gaining hands-on expertise in **AI-assisted engineering workflows**.

React Developer

Oct 2023 – Oct 2024

Freelance

Remote

- Built core sections of an eCommerce platform in **React** – **multi-faceted filtering**, image zoom, and animations – driving a **35% increase** in user engagement.
- Developed an **election data visualisation module** with interactive graphs, improving insights clarity by **30%** and user engagement by **25%**.
- Delivered **10+ Figma-to-code** implementations with **pixel-perfect** accuracy, cross-browser compatibility, and **100% on-time** client delivery.

Software Developer

Nov 2021 – Aug 2023

Hocalwire

Noida, India

- Spearheaded the solo build of a high-traffic **Cinema Listing platform** for a major client – engineered a responsive, booking-style interface with **complex API integrations**.
- Architected a modular **Astrology engine** deployed across multiple newsroom platforms, ensuring high availability for daily dynamic content delivered to **millions of readers**.
- Led frontend development** for a newsroom SaaS product, improving team delivery speed by 20% through technical mentorship and cross-functional workflows.

PROJECTS

- **MiraAI (Active Development) – Developer Skill Tracker** – *Next.js 15, TypeScript, Supabase, Tailwind v4*
AI-powered developer companion that tracks your skills and learning activity, then transforms your growth into **publish-ready X posts** – turning consistent building into a public presence. **Active development.**
- **RAG Chatbot** – *React, Python, FastAPI, LangChain*
Full-stack AI chat application – React frontend, Python/FastAPI backend, and a **LangChain RAG pipeline** for document-grounded responses.
- **Chrome Extension – API Contract Inspector** – *Chrome Extensions API, JavaScript*
Published developer tool that intercepts and diffs API response schemas – **300 organic installs**, helping frontend teams catch breaking backend changes instantly.
- **Dubai Mall Interactive Sales Deck** – *GSAP, ScrollTrigger, Canvas API, Vanilla JS*
Cinematic desktop-first interactive deck for a luxury retail client. **Gold dust canvas particles, blind-strip scroll animations**, SVG silhouettes, and **layered parallax**. Reference build for a React + Framer Motion production version.
- **GTA 6 Clone – Interactive Fan Experience** – *React, GSAP, ScrollTrigger*
Scroll-driven cinematic web experience recreating the GTA 6 visual language – **immersive transitions, motion-heavy layouts**, and precise timing with **GSAP and ScrollTrigger**.
- **AI Book Metadata Extractor** – *Next.js, Vision LLM API*
Clean UI for extracting structured book metadata from cover images using a Vision LLM – title, author, ISBN, and genre – with structured JSON output.

SKILLS

- **Frontend:** React, Next.js, TypeScript, Tailwind CSS, Redux Toolkit, Zustand, Framer Motion, GSAP, Three.js
- **AI / LLM Engineering:** LLM APIs (OpenAI / Claude), LangChain, RAG Pipelines, Vector Search, Prompt Engineering, Vision APIs, Agentic AI Systems
- **AI Dev Workflow** – Cursor (Production), v0, Claude, ChatGPT, Lovable, Replit, n8n
- **Backend & Tools:** FastAPI, Supabase, Firebase, REST APIs, Git, GitHub, GraphQL, AWS
- **Languages:** Python, TypeScript, JavaScript, HTML5, CSS3, SASS

EDUCATION

University of Delhi
Bachelor of Science – Computer Science

Delhi, India
GPA: 8.7/10

OPEN SOURCE & WRITING

- **"Frontend to AI" Article Series (Dev.to)** : Authoring a **weekly Wednesday** technical series translating complex AI concepts – including **word embeddings, RAG architecture, and agentic workflows** – into actionable guides for frontend engineers.
- **Tolgee Open Source Contribution:** Engineered a **top-ranked demo application (45/50)** for Tolgee's localization ecosystem; contributed multiple PRs to improve developer onboarding and UI consistency.
- **Hacktoberfest (2023, 2024):** Successfully contributed to several open-source repositories, focusing on **UI components, documentation, and performance optimizations** for developer-facing tools.