PRATYAKSH RAJ SINGH

Noida, India | newraj990@gmail.com | GitHub | LinkedIn | Portfolio | LeetCode

PROFESSIONAL SUMMARY

Full-stack & frontend developer (B.Tech '27) building production React/Next.js systems and AI-integrated applications — shipped a live D2C e-commerce platform holding sub-1.2s loads and a 95+ Lighthouse score, with measured lifts in session duration and checkout completion — alongside self-directed engineering across GenAI document intelligence (Open-Source LLMs, FastAPI, Supabase), 3D graphics, and cloud web architectures.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Python, SQL, HTML5, CSS3

Frameworks & Libraries: React, Next.js (App Router), Three.js, Framer Motion, GSAP, Redux Toolkit, Zustand, TanStack Query

Generative AI & LLMs: Open-Source LLMs (Llama 3, Mistral), Hugging Face, OpenRouter, Prompt Engineering, Structured JSON Outputs, Function Calling, RAG

Backend & Database: FastAPI, Node.js, Supabase (PostgreSQL, Row-Level Security), REST APIs, SQLite, Postman, Vercel

Styling & UI: Tailwind CSS, SASS, CSS Modules, WebGL, shadcn/ui, Radix, Design Systems, Responsive Layout

Performance, SEO & Analytics: Core Web Vitals (LCP/INP/CLS), Lighthouse Audits, SEO Optimization, Google Analytics (GA4), Code Splitting, WCAG 2.1 / ARIA

Testing & Tooling: Jest, React Testing Library, Vite, Git/GitHub

INTERNSHIP EXPERIENCE

Software Development Intern (Frontend) — Margdarshak — Apr 2025 – Mar 2026

- **Component-Driven Storefront:** Built the entire frontend for a D2C platform carrying 40+ regional spices from 15+ states of India, structuring reusable product, cart, and layout components; average session duration up 40%.
- **Product Discovery & UI State:** Implemented visual product cards and multi-attribute filters (flavor, region, price) driven by derived client-side state, increasing user browsing depth by 35%.
- **Checkout Experience:** Designed a seamless cart and checkout UI with clear validation and error states, cutting cart abandonment by 30% and raising successful purchases by 25%.
- **Core Web Vitals:** Optimized image assets, asset delivery, and component rendering for sub-1.2s load speeds and a 95+ Lighthouse score.
- **Responsive & Cross-Browser UX:** Delivered a mobile-first layout verified across browsers and breakpoints, driving a 45% increase in mobile user engagement.

PROJECTS

Lumora — ***Cinematic Interactive Commerce Layer*** — *React*, *Three.js*, *WebGL*, *Framer Motion*, *GSAP*

- **Architected Real-Time 3D Interaction Layers:** Built a high-fidelity hero canvas utilizing raw WebGL shaders and Three.js, creating seamless coordinate transitions between flat DOM elements and volumetric 3D space to drive immediate brand engagement.
- **Choreographed Scroll-Synchronized Transitions:** Developed a custom scroll-driven interpolation engine that dynamically scales typography and 3D camera vectors based on viewport progression, preserving 60 FPS fluidity across desktop and tablet displays.
- **Engineered Edge Deployment & Loading:** Shipped the build as a self-contained module hosted on Vercel Edge Network, eliminating backend dependencies and cutting Time-to-Interactive (TTI) via aggressive asset splitting tailored for graphical meshes.

Savora AI — ***Generative Workflow Orchestration Interface*** — *React*, *Tailwind CSS*, *OpenAI API*, *Supabase*

- **Designed Agent-Centric User Interfaces:** Translated complex asynchronous agent execution loops into intuitive visual workflows, enabling stakeholders to monitor financial automation tasks and tool statuses in real-time via dynamic indicators.
- **Implemented Adaptive Layout Systems:** Created a responsive grid system that dynamically rearranges layout density and view hierarchy based on active agent complexity, maintaining clean legibility during high-volume data streams.
- **Streamlined Deployment & Data Syncing:** Integrated Supabase real-time subscriptions and optimistic state updates to a headless data pipeline, reflecting automated task completions near-instantaneously on the live operational dashboard.

Nexora — ***Intelligent Accounts Payable Intelligence System*** — *Next.js 15*, *FastAPI*, *Supabase*, *RAG*, *Python*, *Llama 3*

- **Engineered End-to-End Ingestion Pipelines:** Architected a zero-data-retention ingestion pipeline integrating open-source LLMs (Llama 3, Mistral) via OpenRouter to perform semantic document parsing, extracting schema-level metadata from invoices with >98% accuracy.
- **Developed Statistical Auditing Engines:** Implemented a client-side *Z*-score calculation engine to flag unit-price surges, statistical variance, and duplicate entries within batch OCR exports, automating manual reconciliation workflows.
- **Mastered Backend-State Consistency:** Leveraged Row-Level Security (RLS) in PostgreSQL with Pydantic validation schemas in FastAPI to guarantee data integrity during concurrent updates, persisting immutable audit trails for every transaction.

EDUCATION

B.Tech, Information Technology — ABES Engineering College, Ghaziabad — 2023 – 2027

Class XII — Holy Angels School (ICSE Board) — 2023

Class X — Holy Angels School (ICSE Board) — 2021