

Vivek Kumar

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Portfolio Link

PROFESSIONAL SUMMARY

Full-Stack Developer (BCA 2nd Year) with a focus on Next.js 16 and High-Performance Architecture. Solved 450+ DSA problems on LeetCode. Proven ability to ship complex UI interactions (dnd-kit) and type-safe data grids (TanStack) in production-grade environments.

EDUCATION

Amity University Online

Noida, UP

Bachelor of Computer Applications (BCA) — CGPA: 7.82

Jul. 2024 – Jul. 2027

– Currently in 2nd year; Coursework: Data Structures, Web Development, and Databases.

PROJECTS

SaaS Analytics Dashboard | [Live Demo](#) | *Next.js 16, TypeScript, Supabase, Clerk, TanStack Table* Jan. 2026

- Engineered a high-performance analytics platform featuring server-side fetching for real-time revenue calculations.
- Developed a type-safe data grid using TanStack Table with TypeScript Generics for complex sorting and filtering.
- Implemented secure authentication and middleware-protected route groups using Clerk.
- Integrated Server Actions for full-stack mutations with instant cache revalidation and Zod validation.
- Reduced cumulative layout shift (CLS) to zero by implementing a fixed CSS Grid architecture for the sidebar and main content layout

Agile Task Board | [Live Demo](#) | *Next.js 16, TypeScript, Zustand, @dnd-kit* Dec. 2025

- Architected a task management system with complex drag-and-drop physics for reordering tasks and columns.
- Leveraged Zustand with persistence middleware to manage normalized global state across browser sessions.
- Optimized mobile accessibility by implementing custom TouchSensor logic and CSS Scroll Snap.
- Enhanced UX with inline click-to-edit functionality and auto-focus patterns to mimic professional agile tools.
- Engineered optimistic UI updates to ensure drag interactions render instantly, syncing with the backend in the background to eliminate perceived latency

Chef Claude (AI Recipe Generator) | [Live Demo](#) | *React, CSS, Node.js, Hugging Face API* Nov. 2025

- Architected a full-stack AI application that transforms raw user ingredients into structured, markdown-formatted recipes using the Gemma-2-2B-IT model via Hugging Face Inference API.
- Optimized prompt engineering strategies by implementing system-level instructions to enforce strict markdown output and culinary accuracy across generated responses.
- Engineered a specialized backend service using @huggingface/inference to manage asynchronous chat completion requests and prompt orchestration.

SmartBin AI | *Next.js, TensorFlow.js, Zustand, Recharts, TailwindCSS* Oct. 2025

- Engineered an AI-powered waste classification web app utilizing TensorFlow.js and a Teachable Machine model to categorize waste types in real-time via webcam or image upload.
- Designed a comprehensive waste analytics dashboard using Recharts, featuring interactive Pie and Bar charts to visualize recycling distribution and track total classification metrics.
- Implemented a gamified Eco Points System that calculates rewards based on waste type and manages user progression tiers from Eco Beginner to Planet Guardian.
- Leveraged Zustand with local storage persistence to maintain user progress and recycling history across browser sessions.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, C++, HTML, CSS

Frameworks & Libraries: Next.js 16, React, Node.js, Express, TailwindCSS, Zustand, TanStack Table, Recharts

Databases & Auth: MongoDB, Mongoose, Supabase (PostgreSQL), Clerk, JWT

Developer Tools: Git, GitHub, VS Code, Vercel, Postman, Hugging Face API

ACHIEVEMENTS

Data Structures & Algorithms: Solved **450+** problems on LeetCode and **200+** problems on GeeksforGeeks.

Technical Certifications: Pursuing coursework in Data Structures, Web Development, and Database Management.