# Viraj BHardwaj

**J** +91-9896008137 **♠** Portfolio

#### Education

## Indian Institute of Information Technology, Guwahati

2022 - 2026

BTech CSE

### DAV Public School, Kaithal

2021

Class XII: CBSE

92.4%

### DAV Public School, Kaithal

2019

Class X: CBSE

83.4%

#### **Technical Skills**

Languages: C/C++, JavaScript, TypeScript

Frontend: React.js, Next.js, Zustand, Tailwind CSS, Framer Motion, ShadCN, Tanstack Query

Backend: Node.js, Express.js, tRPC, Redis, Socket.io, Zod, Prisma ORM, PostgreSQL

Tools: Git, GitHub, Postman, AWS, Docker

## **Projects**

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- Developed an AI-powered RAG (Retrieval-Augmented Generation) web app that allows users to provide a GitHub repository URL and ask questions about the repository.
- Built the backend using Next.js 14, enabling efficient processing of repository data, file retrieval, and contextual responses.
- Integrated the GitHub API for repository metadata, file retrieval, and commit history, alongside the Gemini API
  for code analysis and contextual insights.
- Designed a clean and intuitive UI using **ShadCN** components and **Tailwind CSS**, ensuring a smooth and engaging user experience.
- Integrated **Stripe** for purchasing credits, enabling a seamless and secure payment system for users.

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- Developed a dynamic quiz platform leveraging Next.js 14 and the **Gemini API** to deliver a seamless user experience and enhanced performance.
- Implemented server-side rendering (SSR) and API routes with Next.js 14, enabling fast and secure interactions for quiz creation and participation.
- Integrated the Gemini API to provide robust data handling and external service connectivity for real-time quiz results and analytics.
- Enhanced backend efficiency with Prisma ORM and PostgreSQL, optimizing data queries and improving system scalability.

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- Developed a **Chatbot** that allows users to upload PDFs and have interactive conversations about the document content.
- Built the backend using Next.js 14, ensuring efficient handling of file uploads, parsing, and processing PDF content.
- Integrated **Gemini API** for advanced AI-based natural language processing, enabling contextual and meaningful conversations about the uploaded PDFs.
- Optimized text extraction with LangChain and retrieval using Pinecone DB, while managing chat data via Prisma ORM and PostgreSQL.
- Designed a modern and visually appealing user interface using **ShadCN** components styled with **Tailwind CSS**, ensuring a responsive and cohesive user experience.

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- Developed a real-time chat application using Next.js, tRPC, and Socket.IO for seamless bi-directional communication.
- Built an Express WebSocket server to handle high-performance message relays and persistent connections.
- Integrated tRPC for type-safe API communication, reducing boilerplate and enhancing development efficiency.
- Designed a responsive UI with Tailwind CSS and shadon/ui, ensuring a modern and accessible user experience.