

Harsh Saini

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Education

Chitkara University

Bachelor of Engineering, Computer Science | CGPA: 9.46

Aug 2023 — 2027

Till 4th Semester

Technical Skills

- **Languages:** Typescript, Javascript, SQL, Java
- **Frontend:** React.js, Next.js, TanStack Query, Zustand, Redux Toolkit, Tailwind CSS, Shadcn/UI
- **Backend:** Node.js, Express.js, tRPC
- **Database & ORM:** PostgreSQL, MongoDB, Prisma, Drizzle, PGVector
- **AI Engineering :** LangChain, LangGraph, RAG Pipelines
- **Cloud & DevOps:** Docker, Git, GitHub, Vercel

Projects

Synapse [Live](#) | [GitHub](#)

Sept 2025 — Oct 2025

Tech Stack: Next.js, TypeScript, TanStack Query, OAuth, Drizzle, Zustand, PostgreSQL, LangChain, Web Scraper

- AI-powered learning platform processing **500+ YouTube videos** into interactive tools generating notes and highlights, summaries, flashcards, quizzes, and enabling chatbot-based QA with **95% content extraction accuracy**.
- Implemented RAG Pipeline using web scraper for YouTube data extraction, vector embeddings, and similarity search achieving **90% answer relevance** and **reducing hallucinations by 60%**.
- Reduced LLM API costs by **30%** and **eliminated 60% of redundant database queries** through state validation and server-side checks preventing unnecessary calls to external models and database.
- Improved query response time to **< 2 seconds** by implementing TanStack Query **caching layer** with scoped keys, eliminating **60% of duplicate requests**.

Gitsync.ai [Live](#) | [GitHub](#)

July 2025

Tech Stack: Next.js, TypeScript, Tailwind CSS, Clerk, Prisma, Shadcn/UI, Cloudinary, tRPC, PostgreSQL

- AI-powered repository analysis tool enabling semantic code search for GitHub repositories, indexing **10,000+ lines of code** while preserving file hierarchy to make the codebase searchable via natural language.
- Implemented RAG pipeline using LangChain and PGVector for semantic code search achieving **85% search relevance** and automated commit summarization with **90% accuracy** reducing time spent understanding git history by **60%**.
- Integrated AssemblyAI for meeting insights with proper timestamps achieving **90%+ accuracy**.
- Enabled **team collaboration** by implementing a secure invitation system, allowing developers to share repositories and concurrently analyze codebases within a unified workspace.

AgriSphere [Live](#) | [GitHub](#)

April 2025 — May 2025

Tech Stack: React.js, Node.js, Express.js, MongoDB, Redux Toolkit, Razorpay, Tailwind CSS, Gemini API

- Smart farming platform offering **crop recommendations** using soil type, region and weather, supported by a fully responsive interface with task and profile management.
- Built a virtual marketplace that enables farmers to trade crops and resources with real time inventory and pricing control.
- Implemented JWT authentication with role based access, global state management, secure payment flows using Razorpay, and added a basic **AI chatbot** to resolve agricultural queries instantly.

Achievements

- Solved **500+** DSA problems on LeetCode/GFG.
- Secured **Top 5** position in **Smart India Hackathon** by building a GenAI-based solution for Doctor Appointment Booking System.