Asif Hoda

Linkedin Github LeetCode Codeforces

EDUCATION

Indian Institute of Technology, Mandi

B. Tech in Computer Science; CGPA: 8.69

Himachal Pradesh, India

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Aug 2023 - Present

• Relevant Coursework: Data Structures and Algorithms, Linear Algebra, Design of Algorithms, Mathematical Foundation of Computer Science, Data Science I, II, III, Deep Learning

Programming Skills

- Languages: Python, Javascript, C++, HTML, CSS, Typescript
- Technologies/Frameworks: React.js, Next.js, Node.js, Express, Tailwind, REST API, MongoDB, Appwrite, Clerk, Shaden, Socket.io, Machine Learning, Transformers, LLMs and VLMs, RAG
- Tools: VSCode, Linux, Github, HuggingFace

Projects

RAW - A Decentralized Collaborative Literature and Artwork Creation Platform

• TailwindCSS, React.js, Next.js, TypeScript, MongoDB, Shadon, Socket.io, Clerk, TipTap Github

- Built a Decentralized Collaborative Platform: Developed a platform for users to create and share stories, comics, poetry, and artwork, enabling open-source-style contributions to creative works.
- Engineered Real-Time Community Features: Implemented live chat with Socket.io, interactive community sections, and a job portal to facilitate collaboration and networking among creators.
- Developed Secure & Custom Editing Tools: Integrated Clerk for authentication and enhanced the TipTap editor with custom AI-powered extensions for a seamless content creation experience.

GoogleMaxPro and HogRAGger - Intelligent Search and Multi-Document Inference Pipelines

• Python, Open-Source VLMs, HuggingFace Transformers, Web APIs, RAG, NLP Github

- Image-Based Search (Developed an AI-Powered Image Search Pipeline): Built GoogleMaxPro, an intelligent image-based search system that processes user prompts to retrieve visually similar objects using open-source VLMs and web APIs.
- Engineered a Multi-Document Inference System: Designed HogRAGger, a Retrieval-Augmented Generation (RAG) pipeline that synthesizes insights from multiple documents to deliver accurate, evidence-backed query responses.
- Ensured Open-Source Compliance & Real-Time Performance: Integrated open-source models and APIs to maintain compliance while optimizing real-time search accuracy and multi-document inference speed.

XPECTO 2025

• Prisma, Typescript, Clerk, PostgreSQL, TRPC, Tailwind, Next.js, Framer Motion, Firebase, Flutter Github | Live Website

- Engineered a Dynamic Event Registration System: Developed a seamless platform for competition and workshop sign-ups, featuring team management, event search, and automated payment verification.
- Optimized Payments & Merchant Transactions: Implemented a QR-based payment system, built an SMS verification process, and developed a Flutter-powered merchant payment app with a digital wallet and cashback system.
- Built a Scalable Referral & Communication System: Designed a campus ambassador program with referral tracking and perks, along with dedicated announcement and team pages for streamlined event communication.

VOLUNTEERING

- XPECTO '25: Head of the Development team for XPECTO, the techfest of IIT Mandi.
- Freelancer: Mentor-JEE in PhysicsWallah