

Prakhar Dwivedi

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SUMMARY

Software engineering student skilled in building and launching web applications, including developing backend services, designing APIs, and integrating applications across different systems.

EDUCATION

IIT Bhopal B.Tech, Electronics & Communication Engineering, **CPI 8.74**
Sept 2023 – June 2027, Coursework: DSA, OOP, DBMS, CN, Systems

EXPERIENCE

Brinavv Technologies | *Software Development Intern (MERN Stack)* **Jan 2026 – Present**

- Onboarding into the MERN-based codebase and development workflows
- Reviewing existing frontend architecture and understanding component structure, API integrations, and data flow

IndiaPaathy | *Fullstack Developer (Freelance)* **Dec 2025 – Present**

- Built frontend screens and reusable UI components using React and Next.js for an NGO-backed platform
- Integrated authenticated REST APIs and handled client-side data flow with focus on correctness and usability

PROJECTS

PanditAI (2026)

[Live Site](#) . [GitHub](#)

- Built and launched a full-stack AI application using **FastAPI** and **Next.js**, integrating astronomical computations, knowledge-graph reasoning (**Neo4j**), and LLM-based natural language generation
- Benchmarked production backend performance, observing **~5.4s cold-start latency** and **~2.2s median warm-request latency**, with **~60% performance improvement** after cache warm-up
- Optimized Docker builds by removing GPU dependencies, reducing backend image size by **~700MB** and improving deployment reliability on managed cloud infrastructure
- Validated frontend-backend API contracts using **Pydantic** and **TypeScript** types, enforcing strict schemas and preventing runtime integration errors across services

eVakeel (2025)

[Live Site](#) . [GitHub](#)

- Engineered a **full-stack web application** with a **React/Next.js frontend** and **Node.js + Python (FastAPI)** backend, designing APIs and data flows to support complex document-based user interactions
- Implemented a **production-grade legal document QA system** over **~63 high-density legal chunks (Acts)**, integrating **InLegalBERT** for semantic retrieval and achieving **~50ms warm-start query latency** under steady-state conditions.
- Containerized and operated the application using Docker; used Redis for caching and structured logging for observability
- Processed 10 document templates; reduced average document-to-embedding time from **12s to 1.2s** (measured on 100 test docs), and cut median API response latency from **340ms to 190ms** after adding Redis caching

ACHIEVEMENTS

- Selected as a **Mentee** for **The Magma Core project** under the **Linux Open Source Foundation** alongside 137 others
- Achieved **top 12K rank** among 262K participants in **Adobe India Hackathon 2025**, placing in the **top 5% nationally**
- Ranked **1st** in the **ECE department** with a **9.32 SGPA** in **Semester 3**, demonstrating consistent academic excellence
- Codeforces:** 1314(Pupil); **CodeChef:** 1614 (3); **LeetCode:** 1799; solved 380+ DSA problems across platforms
- Directed 3+ peer sessions as **Teaching Assistant** for **Digital Logic Design**

ACADEMIC AND LEADERSHIP

Offensive Security Lead | [XPLOIT Club](#), IIT Bhopal

Sep 2025 – Present

- Learning Offensive cyber security and fostering a culture of ethical hacking.
- Organized campus-wide CTF with 100+ participants. Conducting weekly workshops on web exploitation and cryptography.

SKILLS

- Languages:** C, C++, Python, TypeScript, JavaScript, SQL
- Frameworks & Libraries:** React, Next.js, Node.js, Fastify, Prisma, NextAuth.js, Tailwind CSS, Framer Motion
- Databases:** PostgreSQL, MySQL, SQLite
- Concepts:** Data Structures & Algorithms, REST APIs, Authentication, Database Design
- Tools:** Git, GitHub, Docker, Linux (basics)