

Pratham Arora

+91-9810855594 | pratham3992@gmail.com | [linkedin.com/in/pratham3992arora](https://www.linkedin.com/in/pratham3992arora) | github.com/prats3992 | pratham-arora.vercel.app

Education

Plaksha University

B.Tech. in Computer Science & AI

Mohali, India | Expected Aug. 2026

CGPA: 8.20 / 10.0

Industry Experience

AI Engineering Intern

Cotality (PropTech SaaS) | Kolkata

June 2025 – July 2025

- Architected **FastAPI** backend parsing **50,000+ LOC/day** across 15+ languages via Abstract Syntax Tree (AST) analysis, enabling automated real-time documentation generation across polyglot codebases.
- Reduced AI embedding generation costs by **85%** by designing a hash-based change detection system with **SHA-256 on AST nodes**, skipping unchanged functions to eliminate redundant vector database writes.
- Designed and delivered **12 production RESTful API endpoints** with typed Pydantic response schemas, powering real-time code documentation preview consumed by the client-facing interface from day one of deployment.

Technical Projects

VR LLM Conversational Agent | Unity, Gemini API, Google Cloud STT/TTS

Aug. 2025 – Dec. 2025

- Engineered a real-time VR conversational agent integrating **Gemini 2.5 Flash** with Google Cloud STT/TTS, achieving average response latency of **1.8s** through parallel API calls, caching, and audio preprocessing.
- Designed within-subjects user study ($N = 18$) evaluating three latency feedback mechanisms; findings ($p < 0.05$) directly informed the agent's final interaction design.

Anuj Desai Associates – Company Website | Next.js, Firebase, Google OAuth

2025

- Designed and shipped a full-stack site for a CA firm with a careers page and a private admin dashboard where firm partners review and manage candidate applications, powered by **Firebase Realtime Database**.
- Implemented Google OAuth via **Firebase Authentication** with email-allowlist access control, restricting dashboard access to authorised partners while keeping the public application form accessible.
- Structured the codebase with a CMS-style content layer editable directly via GitHub, enabling the client to manage site content without developer involvement post-handoff.

AI Resume Builder & Interview Prep Tool | Next.js, Tailwind, Firebase, Gemini API

Jan. 2025 – Apr. 2025

- Built full-stack AI resume tool with real-time PDF preview and ATS-optimised generation using **Next.js SSR** and **Gemini 2.5 Flash** via streaming API.
- Integrated Gemini to generate personalised interview questions by cross-referencing uploaded resumes against a structured **DSA/STAR prep database**, surfacing role-specific preparation gaps.
- Implemented **Firebase Authentication** with Google OAuth for secure user management and session-based access control across the full application.

Leadership & Involvement

Head of Technology

Athleda – Plaksha Sports Society | Plaksha University

Apr. 2025 – Feb. 2026

- Built and maintained a sports platform serving **500+ students**, shipping event registration, live-scoring, and photo galleries, while mentoring 2 junior developers through code reviews and production deployments.

LEAP.AI @ Plaksha

Web Developer → Head of Web Development | Plaksha University

Feb. 2024 – Feb. 2025

- Led a team of 7–8 through **2 full platform redesigns** as Head of Web Development, growing the AI club site to **800+ monthly users** for events, workshops, and project showcases.

Skills

Languages: Python, SQL, JavaScript, TypeScript

Web & Backend: FastAPI, Node.js, Next.js (SSR/CSR), REST APIs, Pydantic, Tailwind CSS

Cloud & Tools: Azure (Cosmos DB, OpenAI), Firebase, Git/GitHub, Vercel