Harsh Hirawat

Phone: +919479733955
Email: harsh.hirawat@adypu.edu.in

[LinkedIn](#) • [Github](#) • [Codeforces](#) • [Leetcode](#) • [Personal Portfolio](#)

PROFESSIONAL SUMMARY

AI Engineer and Full-Stack Developer with expertise in real-time AI voice agents, LLM orchestration, and high-performance backend systems. Experienced in Gemini Live API, WebRTC, Node.js, Redis-backed state management, event-driven architectures, LangChain based agent workflows and human-in-the-loop AI workflows.

EDUCATION

Bachelor of Technology (Computer Science)   2024 - 2028
Newton School of Technology - ADYPU   Grade: 8.86/10.0

EXPERIENCE

Freelance Full-Stack Developer   November 2025 - Present
MindReader Biotech (USA)   *Remote*

- **Architected and delivered a subscription-based investment intelligence platform** for a US client, designed to bridge complex scientific research with actionable stock market insights.
- **Engineered a high-performance investor dashboard** using **Next.js** and **Tailwind CSS**, enabling users to track diversified stock portfolios and access deep-dive clinical analysis.
- **Owned the complete SDLC** from design to deployment, ensuring **SEO optimization** and **99.9% uptime** to drive subscriber growth for the platform's "General" and "Biotech" portfolios.

INTERNSHIPS

AI Engineer Intern   October 2025 - Present
CommKraft   *Remote*

- Architected and delivered a **production-grade, real-time AI voice agent platform** using **Gemini Live API** and **WebRTC**, enabling low-latency, bidirectional audio streaming.
- Built a **human handoff pipeline** with intelligent agent availability checks, ringing workflows, pickup detection, timeout handling, and **seamless AI-to-human transfer** on the same WebRTC session.
- Designed a **state-driven conversation engine** managing speaking, listening, tool execution, barge-in handling, and graceful recovery from partial failures.
- Developed non-blocking LLM tool orchestration for call scheduling, agent discovery, and knowledge retrieval, allowing the AI to remain conversational during async operations and improving perceived responsiveness by **90%**.

Web Developer Intern   June 2025 - July 2025
Webs Jyoti   *Remote*

- Built a production-ready platform using Next.js, React 19, and Tailwind CSS.
- Developed an SSR admin dashboard and careers portal handling 100+ applications.
- Improved page load performance by 40%.

PROJECTS

Green Hacker — Developer Portfolio Admin Platform ([Github](#)) ([Demo](#))   May 2025

- Engineered a production-grade, scalable CMS with **Next.js 16+** and **Role-Based Access Control (RBAC)** to manage projects, skills, and audit logs securely.
- Integrated **Google Gemini AI** to power an intelligent chatbot and content generation tools, reducing manual content management time by **40%**.
- Built a real-time **GitHub Analytics dashboard** using REST/GraphQL APIs to visualize contribution heatmaps and repository stats dynamically.

- Optimized performance using **Neon** and **Redis caching**, achieving a **98/100 Lighthouse score** for SEO and accessibility.

Gesture Canvas ([Github](#)) ([Demo](#))   May 2025

- Developed a **browser-based computer vision application** enabling hands-free digital art creation via real-time webcam gesture recognition.
- Implemented **MediaPipe** and **TensorFlow.js** pipelines to detect 21-point hand landmarks with **sub-100ms latency** for fluid drawing, erasing, and color switching.
- Designed a **serverless feedback architecture** using Netlify Functions and SMTP, decoupling the frontend from backend logic to ensure high availability.
- Created a custom gesture recognition algorithm to support **dual-hand interactions** and dynamic brush sizing without external hardware.

SKILLS

Computer Languages: TypeScript, HTML, CSS, JavaScript, Python
Data Tools: TensorFlow, NumPy
Software Packages: Pandas, Tailwind, Next.js, OpenCV, Prisma ORM, React, Node.js, Express JS, MySQL, MongoDB
Soft Skills: Verbal/nonverbal communication, Team Building, Time management, Decision-making, Teamwork, Critical Thinking, People skills, Communication Skills
Others: Git and Github, Problem-Solving, LangChain, GenAI, LangGraph, Google Cloud Platform, AWS

EXTRA-CURRICULAR ACTIVITIES

- **Core Member, IRIS-Robotics Club, NST Pune** – Contributed to robotics initiatives, competitions, and conducted multiple workshops, especially on OpenCV.
- **Core Member, Cyber Security Club:** Actively engaged in cybersecurity projects, awareness initiatives, and technical events promoting secure computing practices.