

Ayush Tiwari

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EDUCATION

Motilal Nehru National Institute of Technology Allahabad <i>Bachelor of Technology in Electronics and Communication Engineering</i> Kanpur Public Inter College (UP Board) <i>Senior Secondary Education</i>	CPI: 7.88 (till 4 th Sem) 2023 – current 12 th : 79.8% 2022
Jugal Devi Saraswati Vidya Mandir (CBSE Board) <i>Secondary Education</i>	10 th : 86.8% 2020

PERSONAL PROJECTS

AI-Powered Interview & Learning Portal for Developers Dec 2024 – June 2025
[Live Project](#) [Demo Video](#) [Code Repository](#)

- Developed **Express.js** & **MongoDB** APIs for **auth**, **blog**, **roadmap**, **interviews**, and **certificates**.
- Added **email verification**, **password reset**, and **JWT session** handling with **protected routes**.
- Designed **admin dashboard** for managing **users**, **blogs**, **roadmaps**, **interviews**, and **approvals**.
- Stored user-wise **progress**, **feedback**, and **interview scores** with **leaderboard** computation.

Privision: Real-Time Screen Recorder & Sensitive-Data Shield Oct 2024 – Nov 2024
[Code Repository](#) [Presentation](#) [Architecture Diagram](#)

- Built a **PyQt5**-based screen recording app to prevent accidental exposure of sensitive data during livestreams on YouTube, Facebook, and Twitch.
- Implemented real-time detection and blurring of credit/debit card numbers, API keys, IDs, tokens, and personal text using **PaddleOCR**, **Tesseract**, **Presidio**, **Spacy**, and **OpenCV**.
- Encountered severe latency due to heavy OCR and frame-by-frame processing, making real-time streaming difficult.
- Optimized performance using batch frame processing, multi-threading, and efficient **OpenCV** pipelines, and integrated **FFmpeg** + **RTMP** for smooth output streaming.
- Delivered stable 18–24 FPS livestreaming with accurate, low-latency sensitive-data masking.

AI-Powered Medical Assistant Platform 18 Apr - 20 Apr 2025
[Code Repository](#) [Demo Video](#) [Presentation](#)

- Built end-to-end platform for online diagnosis, rehab monitoring, and patient-doctor interactions.
- Integrated **BlazePose**-based motion tracking and real-time sensor feedback using **Socket.IO**.
- Used **ESP32** + **MPU6050** for hardware posture detection and joint angle tracking.

TECHNICAL SKILLS AND INTERESTS

Languages: C++, C, JavaScript,

Web Technologies: React, Next.js, Node.js, Express.js, Tailwind, MongoDB, SQL

Familiar With: React Native, TypeScript, Python, DBMS, Data Structures, Operating Systems, Github

Gen AI: Langchain, Langgraph, Langsmith, MCP

Soft Skills: Problem Solving, Communication, Time Management, Leadership

POSITIONS OF RESPONSIBILITY AND PROJECTS

Full Stack Developer, Green Club MNNIT (Jan 2025 – June 2025) [Live](#) [GitHub](#)

Designing secure admin/member dashboards with role-based access with modern UI.

Full Stack Developer, Culrav-Avishkar (Apr 2024) [GitHub](#)

Collaborated on full-stack Culrav-Avishkar website (React, Express.js, MongoDB, GSAP) to support cultural fest. Enabled 900+ student registrations.

Executive Developer, CC MNNIT [Certificate](#) [CodeHub](#) [GitHub](#)

Collaborated on Hack36's official platform; contributed to frontend design, implemented various sections.

ACHIEVEMENTS

2026: 7th/340+ – Hack36 (CC MNNIT, Hackathon), 9th/200+ – hack36 (CC MNNIT) [Certificate](#)

2024: 1st/50+ – Dev or Die (Hackathon), 3rd/150+ – Quintathlon (ES MNNIT, OA+Mock) [Certificate](#)

CODING PROFILES

- **LeetCode:** [Contest Rated](#) | 1790