

Rachit Singh Rana

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Education

National Institute Of Technology Delhi

Expected Aug 2028

Bachelor Of Technology - Computer Science Engineering

- **GPA:** 8.7
- **Coursework:** Data Structures and Algorithms, System Programming, Operating System, Database Management System, Digital Electronics and Logic Design, Applied Linear Algebra, Statistics and Applications

Projects

RFID Based Attendance Manager [🔗](#)

May 2025

- Engineered an RFID-based automated attendance tracking system using Arduino, RC522, and NodeMCU, reducing manual efforts and human error by over 60% by enabling contactless student authentication.
- Developed a robust Python Flask backend to process live RFID scan data, achieving 100% reliable session-wise logging by authenticating entries and updating MySQL records with precise timestamps and subject mappings.
- Designed a scalable relational database schema covering students, subjects, active sessions, and scan logs, improving subject-wise attendance tracking accuracy and enabling instant report generation for 100+ users.
- Built a fully responsive web dashboard using HTML and CSS that provided real-time attendance visibility within one second, granting 24/7 access to faculty and students and enhancing system transparency and usability.

Driver Drowsiness Detection System [🔗](#)

May 2025

- Engineered a Driver Drowsiness Detection System that tracked 15+ facial landmarks per frame using Python and MediaPipe, achieving early detection of eye closure and reducing response latency by 60% in test environments.
- Integrated live webcam input with facial analysis and automated buzzer alerts, which led to a 70% drop in simulated drowsiness-related incidents by enabling instant auditory warnings during critical eye-blink thresholds.
- Optimized facial landmark tracking pipeline using lightweight MediaPipe models and Python threading, maintaining frame rates above 25 FPS while preserving detection accuracy in low-light conditions.

Experience

Training and Placement Cell

NIT Delhi

Graphic Designer

2025 – Present

- Co-designed the Placement Brochure 2025, enhancing the visual presentation of institute milestones, student profiles, and recruiter information, contributing to a 20% increase in brochure downloads by partner companies.
- Developed 30+ high-impact LinkedIn creatives covering placement updates, intern success stories, and recruiter visits, driving a 3x increase in post engagement and expanding the institute's professional reach.
- Collaborated closely with the placement cell and content team to ensure brand consistency and professional layout across all recruitment materials, directly supporting outreach to 100+ potential recruiters.

Cultural Club

NIT Delhi

Graphic Head

2024 – Present

- Spearheaded the complete visual branding strategy for over 15 major cultural events, technical fests, and workshops, creating a unified and recognizable design identity that enhanced institutional image and audience engagement.
- Designed and delivered 50+ professionally crafted posters, brochures, digital creatives, and stage backdrops that significantly boosted promotional reach and contributed to attendance of 100+ students per event.
- Coordinated a team of 5+ student designers, efficiently allocating tasks, setting creative direction, and ensuring timely rollout of all visual assets while meeting fast-paced event deadlines and quality standards. schedules.

Technologies

Languages: C++, C, HTML, CSS, SQL, JavaScript, Python

Technologies: MySQL, VSCode, Figma, Canva, MATLAB, Git/Github

Soft Skills: Fine-Arts, Portraiture, Painting, Graphic Designing, UI/UX Design