# Shaurya Aggarwal

#### **EDUCATION**

B.Tech in Electrical and Electronics Engineering
INDIAN INSTITUTE OF TECHNOLOGY, PATNA
CPI: 8.17
Class XII (CBSE)
DELHI PUBLIC SCHOOL, SRE
Marks: 97.8%
Class X (CBSE)
DELHI PUBLIC SCHOOL, SRE
Marks: 96.4%

#### PROJECTS

#### Driver Drowsiness Detection System | React, WebSocket, Python, OpenCV, Express.js

DDD

- Led a team of 4 to build a full-stack solution integrating machine learning and computer vision
- Developed a real-time detection system achieving 85% accuracy at a 20FPS frame rate with 4ms latency.
- Optimized detection time to **0.5 seconds**, thus enhancing responsiveness and system reliability.
- Architected a modern UI with live chart visualization, facial expression analysis and real time notifications, increasing user engagement by 100%

## SkillSwap- Peer to peer skill exchange platform | Express. JS, Tailwind, Mongo DB, React JS, JWT

- Created this platform in 8 hours during Odoo 2025 Hackathon in a team of 3
- Developed a mini-application enabling users to exchange skills by listing what they offer and what they seek, streamlining peer learning for 100+ users.
- Integrated secure role-based access control with user and admin workflows, enabling feedback tracking, ban actions, and activity audits to uphold platform quality.
- Modernised user experience with features like public/private profiles, rating system post swaps, and deletion of inactive swap offers, ensuring a user-centric and scalable design.

## IIT Sphere- Cross IITs event management platform | ReactJS, NextJS, Tailwind, MongoDB, JWT

- Engineered a community based platform for 23+ IITs, incorporating role-based access control (RBAC).
- $\bullet$  Built secure college email authentication and custom validation system for 100% verified sign-ups.
- Designed modern UI which includes post and comment system with protected route access.
- MVP is structured for multi-institute rollout supporting 23+ institutes with isolated auth, posts, and moderation logic.

## SKILLS

Programming Languages: C++, JavaScript

Web Technologies/Frameworks: ReactJS, NextJS, Tailwind CSS, ExpressJS, HTML, CSS

Dev Tools: Node.js, Git, GitHub

Cloud/Databases: MySQL, MongoDB (Mongoose ORM)

#### ACHIEVEMENTS

- Selected in top 250 teams in Odoo Hackathon 2025 out of 15,000+ participants
- Practiced a total of 400+ DSA problems across various platforms.

Leetcode Profile

• Pupil On Codeforces with a peak rating of 1314.

Codeforces Profile

- Secured a Global Rank of 770 on Codeforces in round 1017 amongst 57000+ participants
- Ranked amongst top 1.2 percentile out of over 1.2 million candidates in JEE Mains 2023

## Relevant Coursework

Object Oriented Programming (OOPS), Database Management System (DBMS), Operating System (OS), Computer Networks, Data Science, Internet of Things, Microprocessor

## SOCITIES/ EXTRA-CURRICULAR

• Coordinator, HOSCA (2025-26)

Revamped old website into a modern next.js based SPA resulting in 50% decrease in page load time.

• Core Member, NJACK (2024-25)
Coordinated with the team and organized web development events with 100+ participants, promoting tech engagement across campus.