

# Aditya Singh Gahlaut

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## EDUCATION

### Indian Institute of Information Technology, Lucknow - India

Bachelor of Technology in Computer Science and Artificial Intelligence | [Link to all courses](#)

November 2022 - June 2026

**GPA: 8.0/10**

## EXPERIENCE

### Research Intern

January 2025 - Present

*Indian Institute of Information Technology, Lucknow ReactJs, NodeJs, Solidity ,MongoDb, Prisma, EtherJs, HardHat*

- Built a blockchain-based system that keeps exam papers encrypted until the exact start time, preventing any early access or leaks.
- Used smart contracts to automatically decrypt the papers right when the exam begins, making the entire process secure and tamper-proof.
- Focused on improving academic honesty by using cryptography to remove the risk of early exposure during online exams.

## SKILLS

**Languages:** C, C++, Java, JavaScript, Python

**Technologies & Frameworks:** ReactJs, NodeJs, ExpressJs, Nodemailer, Tailwind CSS, MongoDB, ML, Networking, Distributed Systems ,NumPy, SQL, Linux, Unix, Git, GitHub

**Coursework:** Data Structures and Algorithms (DSA), Object Oriented Programming, Operating Systems, Database Management System, Computer Networks, Data Communication

## PROJECTS

### SecureTestChain

February 2025

*Secure Exams. Decentralized Future. ReactJs, NodeJs, ExpressJs ,Solidity ,MongoDb, Prisma, EtherJs, HardHat*

- Implemented a Timelock Encryption mechanism using AES to safeguard the distribution of exam question papers.
- Leveraged IPFS to store encrypted paper hashes, ensuring decentralized, tamper-resistant storage.
- Developed and deployed Ethereum smart contracts to manage IPFS CIDs with immutable, time-bound access aligned with exam schedules.

### SignalShield

April 2024

*Drive Safe, Stay Aware.*

*Deep Learning, OpenCV, NumPy, scikit-learn, matplotlib, TensorFlow*

- Developed a deep learning and computer vision-based system for real-time traffic sign detection, enhancing road safety and accident prevention.
- Optimized the model using OpenCV, NumPy and TensorFlow, achieving a 25% reduction in misclassification errors.
- Attained a 98% accuracy rate, leading to a 40% improvement in traffic management efficiency by ensuring timely and precise sign recognition.

## ACHIEVEMENTS

- Solved **600+** PROBLEMS on platforms including [CodeChef](#), [LeetCode](#), [CodeForces](#), CSES, GFG, and AtCoder.
- Max Rated as **Expert (1617)** on [CodeForces](#) and **4 STAR** on [CodeChef](#) in over 100 contests.
- Secured Global Rank **1533** in **Codeforces Round 1009 (Div. 2)** among 45,125 participants.
- Secured Global Rank **821** in **Starters 145 Div 2 (Rated)** on CodeChef among 36,932 participants.
- Qualified for the **SemiFinal Round** in **Flipkart Grid 6.0** (Software Development Track & Robotics) among **50,000+** participants.
- Enlisted in Top 5 teams among 400+ participants in HackOfiesta Hackathon – Apr 2023
- **Get Set Foss:** Positioned **3rd** in Get Set Foss, **open-source flagship event**, organized by Axios

## POSITIONS OF RESPONSIBILITY

**Head Initiator, E-Cell, IIIT Lucknow** – Led a team of 15+ to deliver 5+ innovative ideas and foster entrepreneurship. (May 2023 - Present)