

# Ayushman Singh

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## EDUCATION

### Indian Institute of Technology, Gandhinagar

Doctor of Philosophy, Computer Science and Engineering CPI: 8.60

07/2024 – 05/2028

Gandhinagar, India

### Motilal Nehru National Institute of Technology Allahabad

Bachelor of Technology, CPI: 8.95

08/2019 – 06/2023

Prayagraj, India

## RESEARCH INTEREST

5G/6G Technology • Network Function Virtualization • Software-Defined Networking • Network Security

## PUBLICATIONS

- **A. Singh**, S. G. Kulkarni, "Inline 5G Protocol Security via DPU Offloading," NFV-SDN'25 Doctoral Symposium, November 2025.[Accpeted]
- **A. Singh**, A. Gupta, S. G. Kulkarni, "AI-Assisted Smart and Efficient Radio Access Networks," ITU AI for Good Innovate for Impact Report 2025, Category: 5G, pp. 308–312.
- A. Gupta, C. Modi, **A. Singh**, S. G. Kulkarni, "Energy Efficient Predictive Beamforming and 5G Cell Management using SDN," *International Conference on High Performance Computing, Data, and Analytics*, Dec 2024. DOI: 10.1109/HiPCW63042.2024.00072
- **A. Singh**, H. O. S. Mishra, S. K. Jha, "Filtering Online Harassment: ML based Cyberbullying Detection," *sms*, vol. 17, no. 01, pp. 1-6, Mar 2025.
- **A. Singh**, S. Sharma, B. Singh, S.K. Jha, H.O.S. Mishra, "Smart Song Recommendation System using Machine Learning," *2023 9th International Conference on Signal Processing and Communication (ICSC)*

## EXPERIENCE

### 5G Use Case Lab, IIT Gandhinagar

Student In-charge, developing 5G use cases and ensuring smooth lab operations.

12/2024 – Present

### Cyber Security Intern, Unilever Industries Pvt. Ltd. Bangalore

Worked with UniOps Cyber Security Team on NIST-based security practices and proposed KPIs for Unilever South Asia.

06/2022 – 08/2022

## TECHNICAL SKILLS

**Languages:** Java, C, Python, C++, SQL, P4

**Operating Systems:** Windows, Linux

**Networking:** SDN, NFV, ONOS, Mininet

## AWARDS AND ACTIVITIES

- Top 100 out of 3,000 teams in the 5G/6G Hackathon organized by the Department of Telecommunications, Government of India, September 2024
- Top 50 Rank in Hack36 Coding Hackathon at MNNIT Allahabad in 2021
- School Gold medal in International Mathematics Olympiad 2015-2016
- School Silver medal in National Science Olympiad 2016-2017
- Member of Winning team in School Cricket Tournaments

## POSITIONS OF RESPONSIBILITY

### Anokhi Pehel, MNNIT Allahabad

Coordinator

08/2019 – 06/2023

MNNIT Allahabad

- Taught and mentored underprivileged students living near our college.
- Coordinated and led various activities under the club.

### Mentor at SMP, MNNIT Allahabad

Mentor

06/2021 – 06/2023

MNNIT Allahabad

- Helped and guided freshmen and juniors navigate academic and personal challenges in a competitive engineering program.
- Coordinated and led various activities under the club.