




Ujjwal Agrawal

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EDUCATION

Indian Institute of Information Technology, Allahabad (IIITA) <i>M. Tech in Network and Security</i>	2024 – 2026 CGPA: 8.06/10
University Institute of Technology, RGPV, Bhopal <i>B. Tech in Information Technology</i>	2020 – 2024 CGPA: 7.56/10

WORK EXPERIENCE

Teaching Assistant <i>Indian Institute of Information Technology (IIIT), Allahabad</i>	Aug 2024 – Dec 2024
<ul style="list-style-type: none">Assisted in managing the Problem Solving and DSA Lab for B.Tech 1st Year, Section C students.Guided students in programming fundamentals, data structures, and solving complex coding problems.Evaluated coding assignments and provided detailed feedback to improve problem-solving skills.Coordinated lab schedules, maintained resources, and supported faculty in academic delivery.	

PROJECTS

Full Stack Zero-Knowledge Password Manager <ul style="list-style-type: none">Built a secure full stack password manager using React, Node.js, Express, MongoDB, and Material UI.Integrated Zero-Knowledge Proofs for password encryption and user authentication to ensure end-to-end data privacy.Implemented AES-based encryption using Node.js crypto module and managed server-side validation.Designed an intuitive front-end interface for password management with Material UI components.	
Secure Message Transmission Protocol using RSA and AES <ul style="list-style-type: none">Developed a secure communication system using RSA for key exchange and AES-256 for message encryption.Implemented key generation, digital signatures, encryption, and verification using Crypto++ library.	
Certificate-Based Secure VPN Client <ul style="list-style-type: none">Integrated Public Key Infrastructure (PKI) to enhance an open-source VPN client's security.Implemented Snort-based monitoring to analyze and log VPN tunnel traffic for intrusion detection.	

SKILLS

- **Languages:** C, C++, JavaScript, Solidity, HTML, CSS
- **Frameworks/Technologies:** Node.js, React.js, Express.js, Web Development, Blockchain, Zero-Knowledge Proofs
- **Tools:** Git, GitHub, Linux, MongoDB, Crypto++
- **Competitive Coding:** Max Rating 973 on Codeforces, 1400 on LeetCode, 300+ DSA Problems Solved

RELEVANT COURSEWORK

- Data Structures and Algorithms
- Database Management Systems (DBMS)
- Operating Systems
- Object-Oriented Programming (OOP)

HONORS & AWARDS

- National Gymnastics Tournament Participant
- School Captain of Gymnastics Team
- GATE 2023 Qualified AIR-4330 (Marks: 42/100)
- GATE 2024 Qualified AIR-4067 (Score: 540/1000)