

Ayushi Singh

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EDUCATION

UPES, B.Tech spz. Cyber Security and Forensics <i>CGPA 7.82</i>	August 2022 – Present <i>Dehradun, IN</i>
St. Mary's Convent Inter College, ISC Senior Secondary Education <i>Percentage 75.60%</i>	April 2020 – March 2022 <i>Prayagraj, IN</i>
St. Mary's Convent Inter College, ICSE Higher Secondary Education <i>Percentage 86.40%</i>	April 2018 – March 2020 <i>Prayagraj, IN</i>

INTERNSHIP

IBM <i>Cyber Security Intern</i>	June 2025 - Present
<ul style="list-style-type: none">• Gaining hands-on experience in real-time video analytics and Python-based alert systems• Exploring hardware-software integration and embedded system design for perimeter monitoring.• Exploring cybersecurity governance elements including policy compliance and basic audit processes.• Currently exploring AWS integration (SNS, S3) for scalable alert distribution.	

PROJECTS

Smart Perimeter Security System <i>ESP32, PIR Sensor, Python, OpenCV</i>	June 2025 - Present
<ul style="list-style-type: none">* Engineering an IoT-enabled security system with motion-triggered alerts and human detection.* Configured PIR sensor with ESP32 to trigger physical alarms via buzzer/LED.* Designed Python module to capture webcam feed and apply basic video analytics using OpenCV.* Deploying Telegram API for real-time alert delivery.	
Cloud Security Lab <i>AWS, IAM, S3 Bucket Policy, Security Groups</i>	June 2025
<ul style="list-style-type: none">* Created a simulated environment for testing S3 bucket misconfigurations and IAM privilege escalation scenarios.	
SoulSync: Matchmaking Application <i>Flutter, Java, Node.js, MongoDB</i>	Jan 2025 - May 2025
<ul style="list-style-type: none">* Programmed a cross-platform mobile app using Flutter for personalized matchmaking based on numerology.* Engineered backend with Node.js and Express.js, exposing REST APIs for profile handling and numerology logic.* Leveraged MongoDB to store user data and matchmaking results with secure data models.* Implemented logic for calculating Life Path Numbers, Angel Numbers, and compatibility scores.	
PixelLock: Image Encryption Model <i>C</i>	Aug 2024 - December 2024
<ul style="list-style-type: none">* Automated an AES-based image encryption and decryption program in C using SubBytes, MixColumns, ShiftRows, and AddRoundKey.* Converts BMP images to grayscale before encryption to improve visual security.	

CORE COMPETENCIES

- **Languages:** Java, Python, HTML
- **Databases/ Tools:** MySQL, MongoDB, VScode, Metasploit, Nmap, Wireshark
- **Development:** JavaScript, Node.js, CSS, Express.js
- **Security Concepts:** Risk Assessment, Audit Understanding (ISO 27001, NIST), Incident Response Lifecycle, Security Policy Awareness
- **Cloud Platforms:** AWS
- **Soft Skills:** Leadership, Adaptability, Teamwork, Problem Solving

ACHIEVEMENTS

- Achieved Top 3% position on TryHackMe platform, practicing cloud misconfigurations, CTF labs, and red/blue team challenges.
- Won the **Bronze Medal** in IBM ICE 2024 project presentation for PixelLock project organized by School of Computer Science, UPES, Dehradun.

CO-CURRICULAR ACTIVITIES

- * Volunteered in International Conference on Advancements of Cyber Security and Digital Forensics organized by UPES, Dehradun.
- * Volunteered in Virasat organized by ONGC, Dehradun.
- * Social Media Manager for Shuruaat Ek Jyoti Shiksha Ki NGO in Prayagraj.