

Ayushi Singh

+91 969-683-8281 | Mail | LinkedIn | TryHackMe | LeetCode | Github




EDUCATION

UPES, B.Tech in Cyber Security and Forensics <i>CGPA 7.84</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">Developing and integrating a Python-based alert system for real-time video analytics, contributing to a perimeter monitoring project. Engineered and tested hardware-software integration using ESP32 for enhanced system responsiveness.	

PROJECTS

Cloud SIEM with Automated Response (SOAR)  <i>Python, AWS (EC2, VPC, IAM), Terraform, Wazuh</i>	July 2025
<ul style="list-style-type: none">Successfully built and deployed a full SIEM/SOAR pipeline in AWS that reduced the Mean Time to Respond (MTTR) for SSH brute-force attacks to under 10 seconds.Automated the entire threat mitigation workflow, from initial detection by a custom Wazuh rule to the final IP block executed by a Python SOAR script, eliminating the need for manual intervention.	
Smart Perimeter Security System <i>ESP32, PIR Sensor, Python, OpenCV</i>	June 2025 – Present
<ul style="list-style-type: none">Pioneered a human detection system utilizing OpenCV and Python, processing webcam feeds at 30 frames per second, triggering alerts with accuracy rate, and minimizing false positives.Configured PIR sensor with ESP32 to trigger physical alarms via buzzer/LED.Designed a Python module to capture webcam feed and apply basic video analytics using OpenCV.Deploying Telegram API for real-time alert delivery.	
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 the 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">Transformed image encryption process by implementing grayscale conversion for BMP images via a custom C program, decreasing processing time by 25% and improving visual security against unauthorized access.Automated an AES-based image encryption and decryption program in C using SubBytes, MixColumns, ShiftRows, and AddRoundKey.	

CORE COMPETENCIES

- **Languages:** Java, Python, HTML
- **Databases/ Tools:** MySQL, MongoDB, VS Code, Metasploit, Nmap, Wireshark, Burp Suite
- **Development:** JavaScript, Node.js, CSS, Express.js
- **Security Concepts:** Risk Assessment, Audit Understanding (ISO 27001, NIST), Incident Response Life Cycle, Security Policy Awareness
- **Cloud Platforms:** AWS

ACHIEVEMENTS

- Achieved Top 3% 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 hosted by School of Computer Science, UPES, Dehradun.

CERTIFICATES

- Attended **International Conference On Advancement In Cyber Security And Digital Forensics** organized by UPES.
- Completed **Drone Technology and Applications Bootcamp** hosted by NIT Kurukshetra
- Participated in Hackathon arranged by CSA, UPES
- Participated in Hackathon organized by CSI, UPES
- Participated in **Myntra HackerRamp** coding event
- Participated in **Adobe GenSolve** Hackathon

CO-CURRICULAR ACTIVITIES

- * Volunteered in International Conference on Advancements of Cyber Security and Digital Forensics coordinated by UPES, Dehradun.
- * Volunteered in Virasat presented by ONGC, Dehradun.
- * Managed social media for Shuruaat Ek Jyoti Shiksha Ki NGO, growing audience engagement by 30% over 3 months across platforms with a combined 1,000+ followers.