

Pratham Chauhan

 [GitHub URL](#)  [LinkedIn URL](#)  [Portfolio Website](#)

Summary

Computer Science undergraduate with a strong foundation in software engineering principles. Possesses hands-on **experience with** C++, Python, and web development using Flask through various academic and personal projects in cybersecurity and blockchain. Highly motivated to contribute to scalable, secure, and high-performance software development.

EDUCATION

Thapar Institute of Engineering and Technology

Patiala, Punjab

B.E Computer Science and Engineering / Current **CGPA: 7.15 /10**

2022-2026

WORK EXPERIENCE

Blockchain Intern – ELC Summer Internship, TIET

Jun'25–Jul'25

- Explored blockchain-based approaches to log integrity by developing a secure logging prototype on the Solana network over a 6-week internship.
- Implemented Merkle tree batching to process and verify over 500+ Windows Event Logs, gaining practical understanding of hierarchical hashing for tamper detection.
- Developed a Streamlit-based interface enabling real-time verification of Merkle roots, displaying results in under 5 seconds per batch.
- Created a detailed README.md with setup instructions, usage workflow, and troubleshooting guidelines, published on GitHub: github.com/chauhan-pratham/solana-secure-logging-prototype

Cybersecurity Summer Trainee – Acmegrade

Aug'23–Oct'23

- Executed a team-assigned security project to attempt HSTS Hijacking as part of a simulated MITM attack, validating modern browser defenses against HTTPS downgrades
- Configured Bettercap modules (arp.sniff, hstshijack) for traffic interception and HTTPS stripping, confirming that HSTS policies blocked downgrade attempts.
- Automated network sniffing and redirection via custom caplets, streamlining repeat test execution by 50%.
- Documented the attack process, findings, and security implications in a technical report, strengthening internal awareness of HSTS's role in web security.

PROJECT

SMS Spam Classifier | Python, Scikit-learn, Streamlit, NLTK

Aug'24–Nov'24

- Developed a natural language processing (NLP) pipeline using TF-IDF vectorization and logistic regression, achieving approximately 95% classification accuracy on benchmark spam datasets.
- Deployed the model with a Streamlit web interface featuring interactive filtering and real-time text classification preview.
- Implemented preprocessing steps including tokenization, stopwords removal, and stemming using NLTK to enhance feature quality.
- GitHub: https://github.com/chauhan-pratham/SMS_Spam_Classifier

ChatMinds – Flask-based Chatbot | Python, Flask, HTML, CSS, JSON

June'24–May'24

- Engineered a chatbot application with end-to-end **SDLC practices** (requirements, design, implementation, testing, deployment).
- Designed and deployed an **interactive web interface** using Flask, HTML, and CSS to enhance user experience.
- Implemented **intent–response classification** with JSON-driven knowledge base and integrated **NLTK-based preprocessing** (tokenization, stopwords removal, lemmatization, synonym expansion).
- Optimized project for **serverless deployment on Vercel** by bundling lightweight nltk_data, ensuring zero runtime dependency issues.
- GitHub: <https://github.com/chauhan-pratham/Chat-Minds>

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Organizer & Anchor – Alumni Meet, Sunflower Model High School

Nov'23–Dec'23

- **Led and co-hosted** an alumni meet with a 4-member team, managing event logistics and planning activities.
- Engaged **100+ attendees** from multiple graduating batches through stage coordination and audience interaction.

Volunteer – Pratigya Abhiyan

Oct'22–Present

- Served as Class In-charge for Class 7, managing a team of 30 volunteers.
- Conducted educational activities for 70+ underprivileged children.
- Organized events like Children's Day, Society Fair, and various competitions and games.

TECHNICAL SKILLS

Programming Languages: C++, Python, SQL

Technologies & Tools: Git, Linux, Flask, Streamlit, Scikit-learn, NLTK, Bettercap, Wireshark

Concepts: Cyber Security, Ethical Hacking, Object Oriented Programming

ACHIEVEMENTS

- Raised CGPA from 4.77 to 7.15 through consistent effort while balancing academics and physical fitness, demonstrating discipline and strong time management skills.
- Bronze medalist in district-level Karate and active participant in school plays, developing discipline, teamwork, and strong public speaking skills

CERTIFICATIONS

- AWS Academy Cloud Security Foundations [\(Link\)](#)
Topics: IAM, Secure Networking, Shared Responsibility, CloudTrail
- AWS Academy Cloud Security Builder [\(Link\)](#)
Topics: Encryption, KMS, AWS CloudWatch, Security Automation