

SAURAV KUMAR

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🐙 <https://github.com/Saurav-Astro>

Profile Summary

Security and Systems Engineering-oriented BCA student with practical experience in cybersecurity operations, IoT security research, and CTF infrastructure development. Active contribution to multiple security communities, working on challenge design, validation, infrastructure stability, and security awareness initiatives. Proficient in threat analysis, IoT attack surface assessment, Linux environments, and security tooling using Python, C, Bash, and MySQL. Seeking entry-level cybersecurity or security engineering roles to apply and strengthen hands-on security expertise.

Work Experience

Spillmate – AI-Based Emotional Support Platform (Remote, Work From Home)

Sep'25-Oct'25

- Trained and structured conversational datasets to improve AI response accuracy and contextual empathy.
- Assisted in backend logic development and API integration for AI-driven chat workflows.
- Contributed to website development, focusing on user authentication, secure session handling, and anonymous interaction flows.
- Implemented data privacy practices to ensure secure and confidential user conversations.

Projects

KnoxGuard – URL Threat Detection System | Python [LINK](#)

Oct'25

- Developed a defensive tool to analyze URLs and detect suspicious or malicious patterns.
- Implemented logic for identifying phishing indicators and unsafe domains.
- Focused on user-side protection mechanisms and threat detection fundamentals.

Defendrix – Modular Web Application Vulnerability Assessment Framework [LINK](#)

Feb'26

- Designed and developed a modular web application vulnerability assessment framework aligned with OWASP Top 10 standards.
- Implemented dynamic endpoint discovery with depth-controlled crawling, form detection, parameter enumeration, and attack surface mapping.
- Built structured mutation-based detection for SQLi, XSS, SSTI, and security misconfiguration.

AssistAI – AI Accessibility Companion (Next.js 15 | TypeScript | Firebase | Google Gemini) [LINK](#)

Jan'25

- Built an AI-powered accessibility web platform supporting conversational assistance, real-time vision description, and ASL recognition.
- Integrated Google Gemini via Firebase Genkit for context-aware chat and vision-based inference.
- Implemented real-time camera-based object detection and scene understanding.

Technical Skills

Programming & Querying: Python, C, Bash, SQL (MySQL), TypeScript

Cybersecurity & Systems: OWASP Top 10, Vulnerability Assessment, Attack Surface Mapping, IoT Security, Threat Modeling, CTF Challenge Design

Frameworks & Development: PySide6, Requests, BeautifulSoup, Next.js, Firebase (Genkit), Flask

Databases: MySQL, MongoDB (Atlas)

Security Tooling & Concepts: Payload Mutation Techniques, Baseline vs Response Analysis, Severity & Confidence Classification

Systems & Environments: Linux, CLI Operations, Environment-based Configuration

Version Control: Git, GitHub

Education

Bachelor of Computer Applications (BCA)

Manav Rachna International Institute of Research and Studies, Faridabad, India

Apr 2023

Faridabad, Haryana

Kendriya Vidhalaya Kankarbagh

12th — Percentage: 67%

Apr'22– Mar'23

Kankarbagh, Patna

Kendriya Vidhalaya Manesar

10th — Percentage: 76%

Apr'20– Mar'21

Manesar, Haryana