

Yash Verma

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EDUCATION

University of Georgia, College of Engineering Athens, GA
Bachelor of Science in Engineering, Computer Systems Engineering May 2028
Emphasis: Cybersecurity, Software Design Major GPA: 3.5/4.00

CERTIFICATIONS & TECHNICAL SKILLS

Certifications: CompTIA Security+, CompTIA Network+

Security Tools: Nmap, Metasploit, Wireshark, Nessus, Burp Suite, Aircrack-ng, Wifite2, Kali Linux

Languages: Python, Java, TypeScript/JavaScript, Swift, SQL, Bash

Infrastructure & OS: Proxmox, Linux (LXC), Windows, PostgreSQL, Traefik, Authentik (OIDC/OAuth2), Git

PROJECT EXPERIENCE

Chapter Management Platform — Kappa Theta Pi at UGA May 2026 – Present

- Built and deployed a four-application platform (Next.js portal, Express API, SwiftUI iOS app, docs site) serving 85 active members and rush candidates across 164 endpoints and 39 PostgreSQL tables.
- Self-hosted the full stack on Proxmox LXC: Authentik SSO (OIDC/OAuth2 with PKCE), PostgreSQL, Immich media storage, and Traefik terminating TLS with rate limiting.
- Enforced role-based authorization across 6 permission tiers, backed by automated tests running against a real database.
- Shipped QR attendance tracking, concurrency-safe interview scheduling, ICS calendar feeds, moderated group messaging, and push notifications.

Hardware True Random Number Generator

June 2026 – August 2026

- Designed an analog front end using an LM339 comparator to amplify transistor thermal noise into a randomly switching digital output.
- Built a diode-resistor level shifter (1N4148, 33 k Ω / 10 k Ω) to safely interface the ± 11 V comparator output to a Raspberry Pi GPIO pin at 0–2.1 V.
- Implemented rejection sampling in Python to discard out-of-range 4-bit samples and eliminate modulo bias, with live bitstream visualization and SHA-256 digests of captured data.

Wi-Fi / Network Security Penetration Testing

December 2023 – May 2024

- Designed controlled experiments comparing vulnerabilities across the WEP, WPA, WPA2, and WPA3 standards in a lab built from Kali Linux, a wireless adapter, and a TP-Link access point.
- Performed network discovery and vulnerability enumeration with Nmap, then executed penetration testing workflows with Aircrack-ng and Wifite2 to evaluate authentication strength.
- Developed a reverse shell proof-of-concept within the controlled lab environment to demonstrate post-exploitation access and analyze the resulting security risk.

WORK EXPERIENCE

Ipsos Remote

Market Strategy & Understanding Intern

June 2025 – August 2025

- Built data validation and quality checks in Python and Excel across research datasets for 10 clients, catching accuracy issues before client delivery.
- Designed, tested, and deployed surveys in Qualtrics across multiple markets, producing consumer segments and multivariate analysis that fed client reporting.

Edge Communications

Newark, New Jersey

IT Intern

May 2024 – August 2024

- Configured Verkada cloud-managed security cameras and access control across a multi-location hospital network.
- Migrated telecommunications from legacy Panasonic PBX systems to Microsoft Teams Cloud Calling across 5 primary sites, including VoIP configuration.

TEACHING & LEADERSHIP

Paul Duke STEM High School

Norcross, GA

Cybersecurity Teaching Assistant

August 2023 – May 2024

- Developed lesson plans, taught Network+ and Security+ material, and graded coursework while promoting core cybersecurity concepts and digital security literacy.

AWARDS & ATHLETICS

Cybersecurity Award and Scholarship

Paul Duke STEM, May 2024

- Sole recipient, selected for outstanding performance and demonstrated skills in cybersecurity.

Competitive Cricket

2020 – 2024

- Selected for South Zone U19 Nationals and ranked among the top 20 probables for the USA U19 World Cup (2023); 5,000+ career runs and 270 wickets in Minor League Cricket.
- Assistant coach at Major League Academy (Alpharetta, GA), coaching beginner athletes in technique and game strategy.