KARNIKA KURUBA

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SUMMARY

Motivated Cybersecurity Master's student with hands-on experience in Capture the Flag (CTF) competitions and the National Cyber League (NCL). Skilled in problem-solving, analysis, and security awareness, with strong academic and technical foundations. Actively interested in areas such as GRC, threat detection, network security, incident response, and cloud security. Seeking internship opportunities to apply knowledge, gain practical experience, and contribute to organizational security goals.

PROFESSIONAL EXPERIANCE

ITS Enterprise Resource Student Help Desk | Saint Louis University

June 2025 - Present

- University students, faculty, and staff frequently faced IT and secure access challenges.
- Provide responsive IT and cybersecurity-aligned support to maintain academic productivity and compliance.
- Resolved 40–50+ weekly requests including hardware/software troubleshooting, secure account recovery, and MFA resets; assisted with IAM provisioning and password management.
- Improved ticket resolution efficiency by ~25%, reduced recurring access issues, and contributed to compliance documentation through weekly incident reports.

Secretary - Women in Cybersecurity (WiCyS), SLU Chapter | Saint Louis University

May 2025 - Present

- The chapter aimed to grow engagement and promote cybersecurity awareness among students.
- Organize events, manage communication, and drive outreach for diversity in cybersecurity.
- Coordinated 5+ workshops and networking events per semester; maintained organized records/minutes; collaborated with departments and external partners.
- Increased member participation by 30%, expanded visibility across campus, and strengthened SLU's reputation in national WiCyS initiatives.

Intern - Full Stack Data Science | Infra-BIM - Hyderabad, India

Oct 2022 – Jan 2023

• Built and optimized ML models (Linear Regression, Random Forest, Decision Trees) using Python on 50K+ data records, achieving ~85% prediction accuracy.

Intern - Android Mobile App Development | Infra-BIM - Hyderabad, India

Feb 2023 - Mar 2023

• Designed and developed 2 Android apps with Java and API integration, delivering a 95% crash-free rate in testing.

PROJECTS

Access Management Audit & Automation Project

- Designed and implemented a Python-based audit script to review and verify user access control lists (ACLs).
- Simulated enterprise MFA enforcement scenarios, demonstrating secure access management workflows and risk mitigation outcomes.
- Performed a mini architecture review on IAM tools to identify gaps in policy enforcement and suggest NIST-aligned improvements.

Security Assessment & Recommendations – Assurance Insurance Network

- Assessed enterprise infrastructure across 50+ network devices, identifying segmentation and redundancy risks.
- Proposed NIST CSF-aligned strategies that could reduce exposure by ~40%, strengthening network posture.

Phishing Awareness & Prevention Program

- Developed an organizational phishing detection and awareness module, including simulated phishing campaigns.
- Reinforced digital ethics and governance policies, improving employee awareness and reducing successful phishing attempts.

SKILLS

Cybersecurity & Incident Response: Threat Hunting, Vulnerability Management, SIEM (Splunk), Incident Handling, Ethical Hacking (Web, Network, Wireless)

Security Tools: Nessus, Nmap, Wireshark, Burp Suite, Kali Linux, VMware, Metasploit, Shodan

Programming: Python, Bash, PowerShell, Machine Learning (Pandas, NumPy, Scikit-learn), Tableau Cloud

Platforms: AWS (EC2, IAM, VPC, S3), Azure, Google Cloud Frameworks: MITRE ATT&CK, NIST CSF, ISO 27001

Documentation: SharePoint, Microsoft Office Suite, Excel Dashboards

EDUCATION

Saint Louis University, Saint Louis, MO

GPA: 3.8/4.0

Master of Science in Cyber Security

Aug 2024 - May 2026 (Expected)

Relevant Coursework: Cybersecurity Principles, Data Administration, Networking Concepts, Cyber Threats & Defense, Intrusion Detection & Analysis, Incident Response & Mitigation, Cloud Security, Applied Analytics

Malla Reddy University, Hyderabad, India

GPA: 3.2/4.0

Bachelor of Engineering in Computer Science

Aug 2020 - May 2024

TRAININGS AND CERTIFICATIONS

CompTIA Security+ (Expected Dec 2025) Ethical Hacking from Scratch – Udemy PayPal Cybersecurity Training – Network Security

Salesforce Trailhead – 25+ Badges (CRM & Automation) AWS Academy – Cloud Foundations AWS Academy – Cloud Architecting

ACTIVITIES

Cybersecurity Competitions (CTFs & NCL) – Participated in multiple Capture the Flag (CTF) and National Cyber League competitions, practicing real-world cybersecurity skills in incident detection, malware analysis, and network forensics using tools like Wireshark, Splunk, and Autopsy. Demonstrated advanced threat hunting, pivoting, and IOC identification under timed challenges. Achieved 20th place in the Blue Team CTF at DEF CON 2025, showcasing strong analytical and defensive capabilities.

Volunteer – DEF CON, Black Hat, and BSides (Las Vegas, 2025) – Supported event logistics and attendee coordination, assisting in workshops and hands-on security labs. Gained exposure to emerging research, advanced tools, and professional networking with cybersecurity practitioners from industry and academia.

Outreach Volunteer – Visitation Academy (St. Louis, MO) – Conducted cybersecurity awareness sessions on phishing prevention, password security, and safe online behavior. Designed beginner-level CTF challenges to engage high school students and promote interest in cybersecurity and STEM education.