Ritika Verma

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Dynamic cybersecurity professional with over 7.5 years of specialized experience in designing and leading security programs for critical infrastructures and high-stakes products. Skilled in risk assessment, incident response, IAM, and cloud security, with expertise in leveraging frameworks like MITRE ATT&CK, OWASP Top 10, CIS, and NIST. Currently advancing offensive security skills with OSWA certification, CTFs and pursuing a master's in information systems with a focus on AI/ML security. Known for embedding robust security measures in AI/ML tech stacks to secure critical infrastructure, I aim to drive innovations in securing AI environments and lead advancements in cyber defense.

EXPERIENCE

Santa Clara University

Santa Clara, California

Prometheus Lab - Research Assistant

July 2024 – Present

Spearheading comprehensive evaluations of market tools and AI/ML security methodologies, driving the development of an in-depth research paper

Santa Clara University **Generative AI - Teaching Assistant**

Santa Clara, California

April 2024 - May 2024

Orchestrated course administration of a Generative AI, contributing to the enhancement of the educational experience for over 30 students.

Box, Inc.

Cupertino, California

AI / Natural Language Processing (NLP) Intern

Jan 2024 – June 2024

 Developed and implemented a recurrent neural network (RNN) with LSTM architecture, achieving 94% precision in classification tasks, enhancing data extraction capabilities from textual content.

SAP Labs

Bengaluru, Karnataka

July 2021 – April 2022

Cyber Security Design Specialist

- Enhanced EDR solutions by aligning with product security incident response requirements, resulting in a 20% reduction in meantime-to-response (MTTR) and stronger product resilience against threats.
- Implemented and tailored the MITRE ATT&CK framework within the product security lifecycle, significantly improving incident response efficiency by identifying and addressing data source gaps.

SAP Ariba **Security Consultant** Bengaluru, Karnataka

April 2019 – July 2021

- Operationalized Endpoint Data Loss Prevention (DLP) for 1000+ users, including on-boarding/off-boarding, incident analysis, and investigation to prevent sensitive data disclosure outside the company.
- Managed IAM processes for 3400+ users, ensuring authorized access to the company's production environment.
- Triaged approximately 150 incidents per day, reducing false positives by over 70% through policy tuning.

SAP SuccessFactors

Bengaluru, Karnataka

Security Consultant

May 2018 - April 2019

Conducted over 20 vendor risk assessments, updating the vendor onboarding program to align with industry compliance standards against ISO 27001, PCI DSS, SOC, SOC2 Security Standards.

Accenture

Bengaluru, Karnataka

Security Analyst

July 2014 - May 2018

- Created and managed 10 out of 70 security standards for Securing Infrastructure, involving industry analysis and collaboration with affected business units, for ensuring adherence to the security controls.
- Spearheaded compliance and governance effort for the team, regular updates to the tool and training the team for using the tool efficiently.

EDUCATION

Santa Clara University, Leavey School of Business **Master of Science in Information Systems**

Santa Clara, CA April 2025

GPA: 3.9/4.0 (Dean's List: Spring 2024)

Visvesvaraya Technological University Bachelor of Engineering, Computer Science & Engineering Bengaluru, Karnataka

June 2014

TECHNICAL SKILLS

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Security Domain							
*	Infrastructure Security	*	DevSecOps	*	Cloud Security	*	Container Security
*	OWASP Top 10	*	Penetration Testing	*	Vulnerability Management	*	Threat Modeling
*	Incident Response	*	MITRE ATT&CK	*	Risk Assessment	*	Compliance
Security Frameworks & Tools							
*	McAfee DLP	*	Splunk	*	Tanium	*	Kali Linux
*	PhishMe	*	Rapid7	*	Qualys	*	NIST
*	CIS Benchmark	*	РуТМ	*	Inspec	*	BurpSuite
AI / ML Tech Stack							
*	Generative AI	*	Neural Networks	*	Natural Language Processing	*	Deep Learning
*	LLM Evaluation	*	Topic Modelling	*	LangChain	*	RAG
AI/ML Security Frameworks & Tools							
*	NIST Dioptra	*	OpenLLMetry	*	CleverHans	*	SecML
PROFESSIONAL TRAININGS AND CERTIFICATIONS							
•	OSWA, Offensive Security WEB- 200 (ongoing)						2024
•	Kubernetes, LinkedIn Learning						2024
•	Deep Learning Specialization, DeepLearning.Al						2024
•	Python Programming, Google						2023
SANS GIAC 301 Information Security Fundamentals (GISF)						2017	
 Administering Microsoft SQL Server 2012/2014 Databases 							2016
CompTIA Security+							2015

PROJECTS

2014

- **Cybersecurity Compliance and Remediation Automation** (*GitHub*) Developed a local Retrieval-Augmented Generation (RAG), providing dynamic cybersecurity recommendations and detailed remediation plans for security vulnerabilities.
- Chatbot RAG with Evaluation(*GitHub*) Created and evaluated (using LLM evaluation, Llama Index) a Retrieval-Augmented Generation (RAG) powered chatbot designed to answer questions related to auto insurance policies.
- **Lease Recommendation Application Generator** (<u>GitHub</u>) Engineered a custom application using OpenAl embeddings, resulting in a personalized relocation service platform for tailored suggestions.
- **Skincare Recommendation & Pricing System** (*GitHub*) Developed a sophisticated ML-driven system for skincare recommendation and price forecasting, achieving 85% score for classification.

ADDITIONAL INFORMATION

Leadership Experience: President of AI Club at Santa Clara University; event organizer for internal corporate events; budget management.

Professional Memberships: Member of Women in Cybersecurity (WiCyS), NIST/ NICE Cybersecurity Career Ambassador **CTF Experience:** Actively participates in Pacific Hacker's CTF challenges

Mentorship Experience: WiCyS mentor, Generative AI mentor, providing guidance to students AI/ML projects; mentor for Company's new joiners.

Community Involvement: Monthly contributor to a children's education center from 2018 to 2022.

ISO LA 27001:2013 Lead Auditor