Kanak Dahake, MS

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Summary: Dedicated and innovative professional with a Master's degree in Cyber Security. Over 6 years of comprehensive experience in Information Security and Software Engineering, specializing in the intersection of AI, particularly Generative AI (Gen AI), and cybersecurity. Proven track record in delivering secure solutions, threat modeling, and security assessments for complex systems. Adept at building and leading cross-functional teams, driving security initiatives, and ensuring compliance with industry standards.

Education

Georgia Institute of Technology MS in Cyber Security Jan 2021 - Dec 2022 | Remote GPA: 4.0 / 4.0

Prof. Ram Meghe Inst. of Technology & Research BE in Electronics and Telecommunications Jun 2013 - Mar 2017 | Amravati CGPA: 8.42 / 10.0

Skills

Programming

- Over 5000 lines: Python, JavaScript, Node.js
- Over 1000 lines: Shell, Powershell, GO, JAVA

Tech Stack

- Azure, AWS, GCP
- · GenAl & NLP, Machine & Deep Learning
- Langchain (Chains & Agents), RAG
- Streamlit (Frontend), VectorDB
- CV, Neo4j, Blockchain

Tools/Frameworks

- Wireshark, Snort, SPLUNK
- ELK, Metasploit, Ghidra
- MITRE ATT&CK Framework
- Ansible, Git, Docker

Certificates

- Azure Cloud Developer (Microsoft)
- AWS Certified Cloud Practitioner (AWS)
- Deep Learning Specialization (Coursera)
- CompTIA Security+ (CompTIA)
- Information Assurance Professional (DIAT/DRDO)
- IT Security Specialist (LinkedIn Learning)

Relevant Courses

- Applied Cryptography
- Security & Incidence Response
- Data Analytics and Security
- Information Security Policies
- Network Security
- Binary Exploitation Lab
- Secure Computer Systems

Awards

- PWC Innovator Award: GenAl Insights App
- Best Engineering Student: Awarded by The Institution of Engineers
- TCS Digital Champ (Secured TCS Placement)
- Codivita Finalist securing TCS placements
- KPIT SPARKLE Recognition: Promising

 Innovator
- Facebook FBStart Sponsorship: Chatbot App
- NNSC Zonal Winner: Awarded in National Network Security Championship from Amravati Division

Experience

PwC U.S. Advisory

Senior Associate - Innovation Hub | June 2022 - Present | Mumbai, IN

- Led the development of InsightsGen, a Gen Al-driven accelerator, enabling streamlined data analysis with contextually
 relevant insights and visualizations using Natural Language, enhancing decision-making processes. This resulted in multiple
 client engadgement wins for the firm.
- Developed multiple Chatbot, Agents and LLM chains for different usecases like DocQnA, retrieval augmented generation etc.
 Filed for 2 Patents for the designed algorithms.
- Collaborated on ChatPWC, a project that reimagines how enterprises interact with their data, securely integrating with GenAl
 models to transform private data and documents into a strategic advantage.

Associate - Innovation Hub | Dec 2020 - June 2022 | Mumbai, IN

- Implemented a Graph-based anomaly detection system for Azure IAM roles, resulting in a 20% reduction in unauthorized
 access incidents.
- Spearheaded the development of a Federated Machine learning POC on a blockchain network, demonstrating the feasibility
 of secure and decentralized machine learning models
- Designed and executed an NLU (Natural Language Understanding) Pipeline, streamlining information extraction from Clinical Trial documents and reducing manual processing time by 30%.
- Developed a novel approach to validate public addresses of multiple blockchain networks using cryptography such as EDDSA and ECDSA.

Digitate, TCS

Technical Lead Cybersecurity | Jan 2020 - Nov 2020 | Pune, IN

- Led the implementation of Just-in-time access systems for IAM solutions using Python and MongoDB, improving access control and reducing unauthorized access by 35%.
- Led cloud security controls & Secure DevOps processes with code, automation, and data using Python, Bash, REST & Ansible, improving the efficiency of the security operations by 20%.
- Oversaw security for SAAS delivery model, providing expert advice on secure architecture, design, and implementation.

Security Specialist - SAAS Product | Nov 2018 - Jan 2020 | Pune, IN

- Developed a Phishing campaigns detection system using Neo4J graph database and algorithms like label propagation and PageRank, leading to a 20% improvement in identifying malicious campaigns.
- Hands-on technical specialist, handled complex and detailed technical work necessary to establish and maintain Secure Cloud Operations.
- Architected, designed, and delivered Encryption, Key Management, and PKI solutions.
- · Security data analysis, including UBA and providing static and dynamic alerting.

Product Developer - Cognitive Threat Manager | Nov 2018 - Jan 2020 | Pune, IN

- Trained and deployed Deep learning-based Phishing URL and DGA domain detection models, reducing successful phishing attacks by 25%.
- Filed for multiple Patents for the designed algorithms.
- Developed ML services through a Python-based FLASK REST API system.

Projects

NewsGenius - GenAI based News Article Generation

 A GenAl driven app for designed to assist news media publishers and content. It streamlines the process of content creation by leveraging Al capabilities to assist users in tasks such as social media posting, article writing, image generation, summarization, and bullet point creation. It provides a comprehensive set of tools for enhancing the efficiency of news article production. <u>Demo Video</u>

CyptoVulnerability - Responsible Vulnerability Reporting and Disclosure on Blockchain

 Developed a Transparent, Privacy-focused, and Incentive-driven system for traditional vulnerability reporting and disclosure processes using blockchain technology (Hyperledger Fabric Framework). <u>Demo Video</u>

IP Insight - Unsupervised Anomaly Detection for Suspicious IP Addresses

 It uses statistical modeling and neural networks to capture associations between online resources (such as account IDs or hostnames) and IPv4 addresses using AWS sagemaker pipeline. <u>Github Link</u>

Volunteer Experience

- Program Instructor Indian Society for Technical Education (ISTE) Topic: Machine Learning in Cyber Security.
- Microsoft Student Associate Amravati Region | Drove student outreach and learning initiatives by hosting activities like workshops, boot camps, etc.