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 IT Security and Software Engineering, specializing in the intersection of AI, particularly Generative AI (Gen AI), and cybersecurity. Proven track record in delivering software solutions for complex problems and industry experience in product development.

Education

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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 10K lines: Python, JavaScript, Node.js
- Over 2K lines: Shell, Powershell, GO, JAVA

Tech Stack

- Azure, AWS, GCP
- GenAl & NLP, Machine & Deep Learning
- Langchain (Chains & Agents), RAG
- Streamlit (Frontend), VectorDB
- Neo4j, Blockchain
- DevOps: Docker, Git, Ansible
- Models: Transformer (GPT-3/4, LLaMA, GEMMA),
- OpenCV, YOLOv5

Certificates

- Azure Cloud Developer (Microsoft)
- AWS Certified Cloud Practitioner (AWS)
- Generative AI with Large Language Models (Coursera)
- Deep Learning Specialization (Coursera)
- CompTIA Security+ (CompTIA)
- Information Assurance Professional (DIAT/DRDO)

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.

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

Experience

PwC U.S. Advisory

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

- Spearheaded multiple production GenAI Enterprise application including Chat Assited search (retrieval-augmented generation), Chat Insights (Statistics backed Agent on Structured Data), Supervised Content Creation and other SME Chatbots. Leveraging Azure Infrastructure like Cognitive Search, CosmoDB, App insights etc.
- Led the development of InsightsGen, a GenAI accelerator, enabling data analysis with contextually relevant insights and visualizations using NLP, enhancing decision-making. This resulted in multiple client engagement wins for the firm.
- Filed 2 Patents for designed algorithms.
- Collaborated on ChatPWC, a project that reimagines how enterprises interact with their data, integrating GenAl models to transform private data into a strategic advantage.

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

- Developed 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

- Developed Just-in-time access systems for IAM solutions using Python and MongoDB, improving access control and reducing unauthorized access by 35%.
- Implemented cloud security controls & Secure DevOps processes with code, automation, and data, improving the efficiency of the security operations by 20%.
- Oversee security for SAAS delivery model, providing expert advice on secure architecture, design, and implementation.
- Provided support in guiding business and technology partners on Cryptography and Data protection matters.

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 | Jun 2017 – Nov 2018 | 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 designed for news media publishers by streamlining content creation to assist 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>

CryptoVulnerability - 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>, <u>Github Link</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. Github Link