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# Kanak Dahake, MS

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**

#### 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.is
- Over 2K lines: Shell, Powershell, GO, JAVA

#### **Tech Stack**

- Azure, AWS, GCP
- GenAl & NLP, Machine & Deep Learning
- Langchain (Chains & Agents), RAG
- Streamlit (Frontend), VectorDB
- Computer Vision, Neo4j, Blockchain
- DevOps: Docker, Git, Ansible
- Models: Transformer (GPT-3, LLaMA, BERT), 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 activitie 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

- 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 engagement wins for the firm.
- Developed various chatbots, agents, and LLM chains for use cases such as DocQnA and retrievalaugmented generation.
- Filed 2 Patents for designed algorithms.
- Collaborated on ChatPWC, a project that reimagines how enterprises interact with their data, securely
  integrating with GenAI models to transform private data and documents 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 using Python, Bash, REST & Ansible, 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 | 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 - GenAl based News Article Generation

 A GenAl-driven app designed to assist news media publishers by streamlining 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>

# 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. <u>Github Link</u>