### **SHAIK RIYAZ**

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### PROFESSIONAL SUMMARY

Entry-level Cybersecurity Analyst with a strong technical background and a proven commitment to learning. Actively building hands-on skills in network and application security, incident response, and SIEM tools. Currently pursuing advanced certifications (CEH, GUVI Cybersecurity Program) to complement existing credentials like the IBM Cybersecurity Analyst certification.

## **EDUCATION**

• B.Tech CSE (CyberSecurity & DigitalForensics), VIT Bhopal University, Bhopal 2022 - Present CGPA: 8.09

#### TECHNICAL SKILLS

- · Languages: Python, Java
- · AI & Machine Learning: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Pillow, Tinkter, Network X
- Cloud & Databases: MySQL,AWS
- DevOps & Tools: Git, GitHub
- App Deployment: AWS, GCP, Azure, Streamlit (local & cloud), Java(Swing)
- Cryptography: Implementation of classical ciphers (Caesar, Playfair, Vigenère, Vernam), bit-level data manipulation, steganography techniques
- · CS Fundamentals: Data Structures & Algorithms, OOP, DBMS. Operating Systems, Computer Networks, CyberSecurity

### **PROJECTS**

## MEC Steganography GUI: Image Data Hiding and Extraction Tool

May 2024

Designed and launched a dynamic desktop application that embeds and retrieves secret messages within digital images using advanced steganography algorithms.

- Constructed all encoding and decoding workflows from the ground up in Python, leveraging Pillow and NumPy to transform image pixels while preserving near-perfect image quality.
- Developed an intuitive Tkinter-based graphical interface, enabling users to seamlessly select images, embed messages, and immediately act on real-time feedback delivered via clear status dialogs.
- Empowered users to tailor data payload sizes and image transparency settings, ensuring adaptability across diverse image formats and nuanced security requirements.
- Enhanced usability with robust file management, thoughtful pop-up guides, and a transparent, step-by-step workflow for hiding and revealing information.

Technologies: Python, Tkinter, Pillow, NumPy

# CRYPTOCORNERGUI (CIPHERFORGE): COMPLETE CRYPTOGRAPHY SUITE

April 2025

- Pioneered a comprehensive Java desktop application with a modern, dark-themed Swing interface, enabling encryption and decryption with Caesar, Playfair, Vigenère, and Vernam ciphers.
- Devised a suite of advanced features, including automated cipher selection, key validation, frequency analysis, and real-time cipher information.
- · Streamlined core user workflows by implementing plaintext file loading, customizable keys, and timestamped result saving.
- Championed the development of a highly dependable and educational user experience, blending robust cryptography with intuitive controls.
- Technologies: Java, Java Swing, Java Cryptography Architecture

# Ransomware Traffic Classification Suite: End-to-End Network Threat Analytics

August 2025

Designed and deployed a comprehensive Python application for detecting, visualizing, and classifying ransomware and network threats within large-scale traffic datasets, employing advanced machine learning and deep learning models for automated behavioral analysis.

- Developed robust ETL and feature engineering pipelines to cleanse, transform, and encode multi-dimensional ransomware traffic records—leveraging Pandas and NumPy for efficient data structuring and normalization.
- Automated analytical reporting with rich visualizations: generated correlation heatmaps, stacked classification charts, interactive time-series plots, and dynamic address graphs to illuminate trends and anomaly patterns in malicious traffic using Matplotlib, Seaborn, and NetworkX.
- Integrated supervised machine learning (Random Forest) and neural network architectures (TensorFlow/Keras), enabling
  precise classification of benign versus botnet/ransomware-labeled events, with end-to-end model accuracy and
  interpretability assessments.
- Streamlined workflows for reproducible experimentation and deployment, supporting both Jupyter and VS Code
  environments, and delivering clear reports suitable for both research and operational cybersecurity contexts.
- Ensured modular, user-friendly scripting structure with comprehensive error handling and informative output for analysts, data scientists, and cybersecurity professionals targeting proactive threat intelligence.

Technologies: Python, Pandas, NumPy, Matplotlib, Seaborn, scikit-learn, TensorFlow/Keras, NetworkX

# ACHIEVEMENTS

 Smart India Hackathon 2024: Selected as a Finalist in the university-wide Internal Hackathon, recognized for proposing innovative solutions to real-world challenges.

#### **CERTIFICATES**

- IBM Cyber Security Analyst 2025
- Oracle Java Foundations Certified Associate 2025