ANISH KUMAR VEDANT

203-772-9198|aveda2@unh.newhaven.edu|linkedin.com/in/anishkumarvedant|https://anishvedant.github.io/Portfolio/

Graduate student specializing in cybersecurity and networks with expertise in penetration testing, incident response, and threat detection. Proficient in Python, C++, bash and a range of security tools, committed to protecting digital assets and enhancing security posture. Actively seeking an internship opportunity to apply my skills and knowledge in a dynamic environment.

EDUCATION

University Of New Haven | West Haven, Connecticut — May 2025
Master of Science in Cybersecurity & Networks — GPA: 3.83

University Of Mumbai | Mumbai, Maharashtra — May 2023
Bachelor of Technology Electrical Engineering — GPA: 8.20

WORK EXPERIENCE

IoT Engineer & Cybersecurity Specialist, Intern — Thane, Maharashtra
Peak Power Consultancy — July 2022 – June 2023

- Led a project to enhance real-time Human-Machine Interface (HMI) connectivity for electric vehicle (EV) power systems, designing a custom power metering and fault detection circuit integrated with the ESP32 microcontroller via Controller Area Network (CAN), utilizing tools like Arduino IDE, Visual Studio IDE, and Adafruit.
- Developed a secure web application using Flask, HTML/CSS, JavaScript, and SQL for real-time EV data presentation, increasing user engagement by 30% through dynamic updates and secure coding practices.
- Implemented a Long Short-Term Memory (LSTM) algorithm for remote battery health monitoring via a secure web server on AWS, leveraging Python, TensorFlow, Pandas, and NumPy to enhance assessment accuracy by 35%.
- Strengthened web application security by conducting audits and applying patches with NMap, OpenSSL, Burp Suite, and Snort, employing AES and PGP encryption alongside AWS IAM to ensure robust protection and reduce vulnerabilities by 50%.

PROJECTS

Hidden Keylogger — April 2024 – June 2024

- Developed an educational tool using python to monitor system activities, including clipboard data, system information, browser history, connected devices, network information, and keystrokes. Implemented symmetric data encryption and secure remote data transmission to a server. Enhanced endpoint detection and response by capturing screenshots and logging keystrokes.

End to End encryption — March 2024 – April 2024

- Implemented a secure communication system in Python, showcasing end-to-end encryption (E2EE) between a client and server. Utilized x25519 for key exchange, AES for encryption, and HMAC for message integrity, enabling secure and private communication with concurrent connection handling. Applied security information event management (SIEM) for real-time threat monitoring.

Recommender System using Transfer Learning — March 2023 – April 2023

- Developed a Fruits & Vegetables Recommendation System using ResNet50 architecture and transfer learning on a 10k image dataset. Integrated the trained model with a user-friendly Streamlit application, enabling users to upload images and receive accurate product recommendations efficiently.

IoT Based Home Security System — February 2021 – March 2021

- Developed an advanced home security solution utilizing Arduino and NodeMCU to integrate motion detectors and cameras for monitoring unauthorized access. Designed a user-friendly interface for real-time alerts and notifications, enhancing home safety through continuous surveillance and prompt response capabilities.

Home Automation System — August 2020 – April 2021

- Developed and implemented a range of IoT solutions including a smart fire alarm system using Arduino and GSM modules for real-time alerts, an automated street lighting system with NodeMCU and LDR sensors for optimized energy use, an automatic water pump with a 555 timer IC for efficient water management, and a contactless sanitizer dispenser using ESP32 and infrared sensors to enhance public hygiene.

PUBLICATIONS

Detecting Cyber Attacks in a Cyber-physical Power System: A Machine Learning Based Approach, IEEE — December 2022
A Machine Learning Approach to Transformer Oil Temperature Monitoring Using Load Analysis, IEEE — December 2022

CERTIFICATIONS

- Red Hat System Administration I & II, Red Hat — June 2024
- Introduction to Python for Cybersecurity, InfoSEC — December 2023
- Foundations of Cybersecurity, Google — December 2023
- Ethical Hacking, Internshala — September 2021