PROFILE INFO

I am a B.Tech student specializing in Computer Science with a focus on cybersecurity and the Internet of Things (IoT). I have completed numerous projects in cybersecurity, where I developed skills in threat detection and vulnerability assessment. Additionally, I have explored machine learning and artificial intelligence through several projects, applying these technologies to enhance security measures and optimize IoT systems. I am passionate about leveraging my knowledge and skills to contribute to innovative solutions in the tech industry. Feel free to customize it further to match your personal style!

SKILLS

- Programming Languages (Python, Java, C++, JavaScript)
- Machine Learning
- Artificial Intelligence
- Cybersecurity
- Vulnerability Analysis
- Penetration Testing
- Incident Response
- Internet of Things (IoT)
- Computer Forensics
- Cloud Security
- Effective Communication

EDUCATION

SECONDARY SCHOOL

St Joseph's

X STD 75.8 %

XII STD 82 %

B.TECH

B.Tech CSE in Cybersecurity & IoT(2021-25)

Sri Ramachandra Faculty of Engineering and Technology,
SRIHER, Porur, Chennai, Tamilnadu, India

HOBBIES

- Playing Cricket
- Listening To Music
- Dancing
- Watching Movies

VENKATESH .V

CYBER SECURITY ENTHUSIAST

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PROJECTS

1 Automating Penetration Testing in Network Environments Using Hierarchical Deep Reinforcement Learning

1. Q-Learning for VANETs: Implemented a Q-Learning framework to enhance security in Vehicle Ad-Hoc Networks by redirecting vehicles during testing.
2. Hierarchical Deep RL: Proposed a model integrating expert knowledge to improve efficiency and effectiveness of automated penetration testing against evolving threats.

2 Evaluation of Security measures for 2FA in full stack website development

The study evaluates the significance of Two-Factor Authentication (2FA) in full-stack web development, emphasizing its role in enhancing user data security. It discusses various implementation methods, highlighting the balance between security and user experience. By examining the layers of 2FA, the study underscores its importance in fortifying the modern web ecosystem against unauthorized access and evolving threats.

3 Nurse performance monitoring

Developed an Android application called Nurse Performance Monitor to facilitate Multiple Choice Question assessments for nurses. This application allows head nurses to directly evaluate sub-nurses' performance through interactive assessments, with scores based on their responses. Utilizing MySQL DBMS for efficient question management and score tracking, the project aims to streamline the assessment process in nursing. Future documentation will detail the software and hardware requirements, database structure, and application modules involved in the development.

4 Multifactor Authentication For Web Applications

Implemented a multi-factor authentication system that enhances user security through three layers: a user registration process that securely collects passwords (first factor), a one-time password (OTP) sent to the user's mobile device or email for verification (second factor), and facial recognition technology for biometric verification (third factor). This comprehensive approach ensures robust protection of user accounts by requiring multiple forms of authentication before granting access.

5 Chatbot with SQLite Database for User Interaction

A chatbot application using SQLite to store user queries and bot responses. It has three components: a script to create the database and interaction table, a script to populate sample data, and a main chatbot script that retrieves responses based on user input. The chatbot prompts users, returning stored responses or generating a default reply. This demonstrates using a database to enhance user interaction and maintain conversation history.

RESEARCH PAPERS

2024 A Class Specific Feature Selection Method for Improving the Performance of Text Classification

https://www.scpe.org/index.php/scpe/article/view/2502

- This paper presents a novel class-specific feature selection algorithm aimed at enhancing text classification performance. Traditional feature selection methods often consider all classes collectively, which may not yield the most relevant features for specific classes. The proposed method involves class binarization and selects the optimal feature subset for each class while addressing class imbalance and redundancy elimination. The final classification is performed using the Weighted Average Voting Ensemble method. Experimental results demonstrate that this approach outperforms existing feature selection methods, achieving an accuracy improvement of over 37%. The study emphasizes the importance of effective feature selection in maximizing machine learning model performance for text classification tasks.

2024 An Explainable AI Model in Heart Disease Classification using Grey Wolf Optimization

https://www.scpe.org/index.php/scpe/article/view/2502

- Heart disease is a leading global cause of death, prompting research into machine learning for early detection. This study presents a novel approach that addresses missing values through instance grouping, employs dual filter-based feature selection for optimal feature identification, and utilizes Grey Wolf Optimization for hyperparameter tuning of machine learning models. The proposed method achieved an accuracy of 98.41%, outperforming existing models by over 17.15%. Additionally, Explainable AI (XAI) techniques were implemented to enhance model interpretability, ensuring that results are understandable for healthcare professionals.