

ISAAC NATARAJAN

Aspiring Cybersecurity Professional | AI & ML Graduate | CEH and APT (Ongoing)

Sharjah, UAE | natarajanisaac57@gmail.com | +971 543242621
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ABOUT ME

Recent Computer Science graduate specializing in Artificial Intelligence and Machine Learning, with a growing passion for cybersecurity. Currently pursuing APT and CEH certifications at RedTeam Hacker Academy to gain hands-on expertise in penetration testing and ethical hacking. Eager to apply AI/ML techniques in cybersecurity to build intelligent defense systems and contribute to securing digital infrastructures.

EDUCATION

Sathyabama University , Chennai, Tamilnadu

Jul 2021 - May 2025

B.E. Computer Science with Artificial Intelligence & Machine Learning

Secured CGPA 8.23/10

INTERNSHIP

Prodigy Infotech | Chennai, Tamilnadu

Jan 2024 - Feb 2024

Machine Learning Intern

- Participated in a project dealing with Dogs vs. Cats classification and gained practical experience with deep learning through Convolutional Neural Networks (CNN) processes.
- Carried out image pre-processing tasks such as image resizing, pixel normalization, and dataset partitioning into train and test portions.
- Achievements were analyzed in terms of accuracy and loss as performance metrics.
- Increased the image classification quality by burning the hyperparameters values and the aim of the model architecture building.

ExcelR Solutions | Chennai, Tamilnadu

Jul 2023 - Oct 2023

Data Science Intern

- The data was uniformed for accuracy so that raw data would be less prone to errors and more informative and useful.
 - The data was made consistent by using outliers, and this ensured appropriate standardization for valid analysis.
 - Machine learning techniques were used appropriately to predict liver disease with the model being tuned for the dataset and the constraints of the problem.
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PROJECTS

Phishing Website Detection using Machine Learning

Jul 2025

- Developed a Random Forest-based phishing detection system achieving 97% accuracy on UCI dataset with 11,055 samples, demonstrating strong machine learning implementation and cybersecurity threat analysis skills.
- Implemented comprehensive model evaluation including confusion matrix visualization, feature importance analysis, and classification metrics to validate model performance and interpretability.

Technologies Used : Scikit-learn, Pandas, Numpy, Matplotlib, seaborn

Enhanced Spatial Awareness through Smart AI Glasses

Jun 2024

- Developed a real-time wearable navigation system for visually impaired users using embedded camera in spectacle frame to capture environmental data and provide audio-based guidance for enhanced mobility and safety.
- Engineered computer vision pipeline with OpenCV and TensorFlow algorithms for object detection, obstacle recognition, and feature identification, converting visual information into comprehensive audio feedback through TTS integration.
- Optimized embedded system performance on Raspberry Pi hardware to handle real-time processing constraints, varying lighting conditions, and computational limitations while maintaining responsive user experience.

Technologies Used: Python, OpenCV, TensorFlow, Raspberry Pi, TTS (Text-to-Speech) APIs

College Bus Monitoring Using ANPR

Jan 2024 - Apr 2024

- Designed automated vehicle tracking system using ANPR technology to monitor college bus entry/exit times through CCTV surveillance cameras at strategic access points, enabling real-time fleet management.
- Implemented robust image processing pipeline with OpenCV and Tesseract OCR to capture, preprocess, and extract license plate text under varying lighting and weather conditions with high accuracy performance.
- Integrated comprehensive data management solution with MySQL database for automated logging, report generation, and historical data analysis of vehicle movements and operational patterns.

Technologies Used: Python, OpenCV, Tesseract OCR, Machine Learning

CERTIFICATES

- [Intermediate Machine Learning](#) - Kaggle
- [Oracle Cloud Infrastructure](#) - Oracle
- [Artificial Intelligence](#) - AICTE
- [Linux 100: Fundamentals](#) - TCM Security

SKILLS

- AI & ML Tools - Tensorflow, Computer Vision, Keras, Scikit-learn, Pandas, Numpy, matplotlib, Seaborn, YOLO, PyTorch (Basic).
- Scripting and Languages - Python, Bash, Powershell, SQL.
- Offensive security - VAPT (Web, system, network, cloud).
- Tools & Technologies - Nmap, BurpSuite, Metasploit, Nessus, Wireshark, Hydra, John the Ripper, Mimikatz, BloodHound, Sqlmap, Smb, Kali Linux.
- Soft skills - Communication, Adaptability, Problem-Solving.

ADDITIONAL INFORMATION

- Languages - English, Tamil, Malayalam