Rethvick Sriram Yugendra Babu

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Education

University Of Arizona — Tucson, Arizona
Master of Science in Computer Science — AUG 2023 - MAY 2025
GPA: 4.0/4.0
Principles Of Machine Learning, Design and Analysis of Algorithms, Advanced Data Visualization

SRM Institute Of Science And Technology — Chennai, India
Bachelor of Technology in Computer Science And Business Systems — AUG 2019 - MAY 2023
GPA: 9.16/10
Operating Systems, Data Structures and Algorithms, Artificial Intelligence, Machine Learning, Image Processing and Pattern Recognition, Information Security, Computer Networks, Database Management Systems, Software Engineering, Design Thinking, Marketing Research and Market Management, Human Resource Management, Fundamentals of Management, Business Strategy, Analytical and Logical Thinking Skills, Financial and Cost Accounting, Computational Statistics

Academic Projects

Detection of All Covid Variants with a Smartwatch Using Artificial Intelligence | *Python · TensorFlow · Keras*
- Developed and deployed an AI-based system utilizing data from smartwatches for real-time detection of all COVID variants; achieved an impressive 95% accuracy rate in identifying and monitoring virus mutations, enabling timely public health interventions.
- Deployed machine learning algorithms for advanced pattern recognition and predictive modeling utilizing smartwatch sensor data; accomplished a 40% increase in accuracy for health monitoring and early detection of anomalies.
- Utilized Python for data analysis and machine learning, leveraging libraries such as TensorFlow, Keras, and NumPy.
- Managed the collection and processing of sensor data from smartwatches, including heart rate and temperature data.
- Demonstrated strong problem-solving skills and the ability to work in a multidisciplinary team.

Implementation Of Collision Detection Using Computer Vision For Predicting Vehicular Accidents | *OpenCV*
- Innovated a real-time collision detection system using computer vision techniques, significantly enhancing road safety by predicting potential vehicular accidents with an accuracy rate of 95%.
- Applied machine learning algorithms to train a model that accurately identifies and tracks moving objects in video feeds.
- Participated in regular project review meetings, contributing to the ongoing refinement and improvement of the system based on feedback and new research findings.
- Conducted rigorous testing and validation of the system using real-world scenarios to ensure accuracy and reliability.

Prevention System for Baggage Loss in Airports Using Artificial Intelligence | *SQL · JavaScript · Scikit-Learn*
- Spearheaded the adoption of RF-ID technology to enable real-time luggage tracking and identification, which was achieved by attaching RF-ID tags to each piece of luggage.
- Created a comprehensive database system to store and track real-time information, baggage details, and historical data; resulting in a 40% reduction in data retrieval time and improved decision-making processes.
- Architected a user-friendly interface using HTML, CSS, and JavaScript, empowering staff and passengers to seamlessly track luggage, and increased a 30% boost in performance speed

Music Recommendation System Using Facial Mood Recognition | *Keras · OpenCV · TensorFlow · Scikit-Learn*
- Engineered a machine learning model for facial mood recognition using convolutional neural networks (CNN) and OpenCV for image processing
- Integrated the music recommendation system with Spotify API to provide a vast array of song suggestions.
- Optimized the model's performance by fine-tuning parameters and using techniques such as data augmentation.
- Achieved 85% accuracy in mood prediction, improving the user experience by providing more accurate song recommendations.

Technical Skills

Programming Languages: C++, Python, Java, JavaScript, SQL, R, HTML, CSS, Node, Swift
Frameworks: D3, React, OpenCV, TensorFlow, Keras, SciKit-Learn
Technologies and Workflows: Xcode, MySQL, Git

Awards & Hackathons

Awards: Machine Learning & Big Data using Python and Data Science with R Language (Prag Robotics)
Hackathon: Structure Creation of Predictable and Unpredictable Robotics