SAADHIKA E

GRADUATE

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Education

- *Bachelor of Technology in Computer Science and Engineering (Artificial Intelligence and Data Analytics)*

Sri Ramachandra Institute of Higher Education and Research, Porur, Chennai

- *12th Grade*

DAV BHEL School(CBSE), Ranipet

Hard Skills

- Python
- Machine Learning
- Deep Learning
- Natural Language Processing
- Java (basics)
- C (basics)
- Data Analytics(SQL, Tableau, Power BI)
- HTML, CSS, JavaScript
- Streamlit
- AWS (basics)

Recent Computer Science Engineering graduate with a specialization in Artificial Intelligence and Data Analytics. I have a strong interest in Machine Learning, Data Science, and applying data analytics to real world problems. I developed practical solutions through projects like a real-time crowd detection system using YOLOv5 and a Li-Fi transmission system, as well as a highly accurate news classification model. I am eager to build intelligent systems, explore new tools, and support innovative data-driven projects. I work well in teams, have a problem-solving attitude, and have hands-on experience in predictive modeling, computer vision, and IoT technologies.

Projects and Internships

Intern at VCodez Innovating Ideas

- **Role -** ML Engineer

IoT-based Assistive Technology for Visually Challenged

- Developed a cost-effective, IoT-enabled solution using Raspberry Pi, OpenCV, and YOLOv3 to assist visually impaired individuals.
- Designed a web interface to add and manage recognized objects and faces.
- Integrated features such as object detection, facial recognition, and text-to-speech conversion for real-time assistance.

NEWSCAT Online News Classification Using Machine Learning Techniques

- Developed a news classification system achieving a high accuracy using Random Forest, supported by strong preprocessing and feature extraction.
- Built a Streamlit web application for real-time testing and provided a scalable foundation for advanced text classification systems.

Secure Data Transmission System Using Li-Fi with Real-Time Encryption and Decryption

- Designed and implemented a real-time crowd detection system using YOLOv5 on recorded and live video streams.
- Integrated Li-Fi transmission using Arduino Uno with XOR encryption and LDR-based decoding for secure, light-based data transfer.
- Enabled smart wireless communication for indoor environments with minimal latency and power usage.

Soft Skills

- Communication
- Teamwork
- Adaptability
- Problem Solving
- Critical Thinking
- Time Management

Languages

- English
- Tamil
- Telugu
- Hindi
- Kannada

Certifications

- Business Analyst Fundamentals
- Google Data Analytics
- MongoDB Course
- NLP and Text Mining

Chronic Kidney Disease Prediction

- Implemented KNN-imputer for feature engineering, achieving improved prediction accuracy for CKD detection.
- Designed an efficient algorithm requiring fewer medical tests for early and accurate diagnosis.

Depression, Anxiety, Sleep Cycle, and Academic Performance Prediction

- Utilized machine learning techniques, including SVM and LSTM models, to predict mental health factors and their correlation with academic performance.
- Achieved 98.71% accuracy in predicting sleep cycle issues and 94.85% accuracy in predicting depression, demonstrating the reliability of ML approaches in this domain.

Legal Document Summarization

- Utilized topic modeling to analyze and interpret large legal document collections.
- Enhanced the methodology with abstractive summarization techniques using RNNs and LSTM networks for improved accessibility and usability of legal analysis.

Q-Learning for Autonomous Taxi Agent in OpenAI Gym

- Demonstrated the application of Q-Learning in training an autonomous taxi agent for navigation and transportation tasks.
- Validated reinforcement learning's potential in dynamic, real-world environments.

Breast Cancer Prediction

- Developed predictive models using Logistic Regression, Random Forest, Support Vector Machine, and KNN.
- Achieved high accuracy levels, with Logistic Regression and SVM reaching 97.36%.