# SIRAPARAPU SAI SATYA PAVAN CHARAN

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Linkedin | Github | Portfolio

## Education

| **IIIT KOTTAYAM** | Aug 2023 - April 2027 |
|---|---|
| B.Tech. in Computer Science and Engineering | **CGPA: 8.24/10** |

Relevant coursework: Web-Development, Full stack web-dev, Operating systems, Databases, Design and analysis of algorithm, Data structures, Discrete Maths, Machine learning, App dev, Statistics

| **Sri Chaitanya Educational Institutions** | June 2021 - May 2023 |
|---|---|
| APBIE Board | **Percentage: 98%** |
| JEE MAINS | **96.6 Percentile** |

## Technical Skills

**Languages:** C/C++, Java Advanced, Python, JavaScript, SQL
**Web-Development:** HTML, CSS, React, Nodejs, Express, Django, Flask
**Frameworks:** Numpy, Pandas, Matplotlib, Tensorflow, Swing GUI, Gradle, Maven
**Tools:** VS Code, Jupiter, Kaggle, Github, Linux

## Projects

**Fake News Detector** link                                                                     **Present**
◦ Built a **Fake News Detection System** using **Natural Language Processing (NLP)** and **Machine Learning**, leveraging **TF-IDF vectorization** and a **Support Vector Machine (SVM) classifier** for text classification.
◦ Preprocessed textual data using **tokenization, lemmatization, and stopword removal** to improve model accuracy. Trained and fine-tuned the classifier using **Scikit-Learn**, achieving reliable classification of real vs. fake news.
◦ Developed an **interactive web app** using **Streamlit**, integrating a trained ML model to allow real-time fake news detection based on user input. Optimized the app for efficient text processing and UI responsiveness.

**IPL Win Predictor** link                                                                  **January 2025**
◦ **Machine Learning Model Development:** Built an IPL match win probability prediction model using Random Forest, trained on historical match data with features like team names, host city, score, overs, and wickets.
◦ **Full-Stack Implementation:** Developed an interactive frontend using Streamlit, integrated with a trained ML model to provide real-time win probability predictions based on live match inputs
◦ **Deployment & Optimization:** Deployed the application on Streamlit Cloud/Heroku, optimized model performance with feature engineering, and improved accuracy using data preprocessing techniques.

**Restaurant Management System Web App** link                                          **Sept - Oct 2024**
◦ Developed a full-stack restaurant management system using HTML, CSS, React, Node.js, and SQL, management of orders, table reservations, and employee tasks, with dynamic user and employee authentication.
◦ Implemented a responsive web interface featuring user-friendly components for real-time order tracking, cart management, and reservation scheduling, integrated with a robust SQL database.

## Research Experience

**Covid-19 fake news detection**| *IIIT Kottayam*                                    **Present**

◦ Conducting research under the guidance of *Prof.Dr.BalaSubramanian* on detecting misinformation related to COVID-19.

◦ Implementing **Machine Learning (ML) / Natural Language Processing (NLP) models** to classify news as fake or real using datasets from **trusted sources** (e.g., WHO, CDC, fact-checking websites).

◦ Developing a **dataset preprocessing pipeline** involving **web scraping, text cleaning, and feature extraction** to improve model accuracy.

◦ Exploring **BERT, LSTMs, TF-IDF, and Transformer-based models** for enhanced fake news detection.

◦ Performing **sentiment analysis** and **topic modeling** to understand misinformation patterns.

## Positions and Responsibilities

**Event Organiser**- Synapse *[Apoorv 2024]*

Organised Synapse under Apoorv, Planned and organized Synapse, a event at the annual techno cultural Fest Apoorv, attended by over 200 participants.