

# SIRAPARAPU SAI SATYA PAVAN CHARAN

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[Linkedin](#) | [Github](#) | [Portfolio](#)

## Education

### IIIT KOTTAYAM

Aug 2023 - April 2027

B.E. 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

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**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

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**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.

## Referee

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**P Balasubramanaih**

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Designation: Assistant Professor at IIIT Kottayam

Qualification: PhD from NIT Trichy