# **SATHIESH PRABHU R**



3rd Year B. Tech Student

Artificial Intelligence and Data Science

MEPCO Schlenk Engineering College, Sivakasi.



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## **TECHNICAL SKILLS**

- Programming Language PYTHON, JAVA, C, C++, HTML, CSS, JAVASCRIPT
- Web Page Development using HTML,CSS, and JAVASCRIPT
- Design in Canva
- DataBases
  - MySQL
  - MongoDB
  - Neo4j
  - Cassandra
- MS Office Word, PowerPoint

## **CERTIFICATES**

- Programming with JAVA (in NPTEL)
- Responsible & Safe AI Systems (in NPTEL)
- Basic HTML Language (in Bignary)
- C++ Programming (in Bharathidasan University)
- Certificate of appreciation for participated in MEPEXPO'24
- Certificate of participation in Internal Hackathon for SIH 2024
- Certificate of participation in 3 day capacity building program

## **LANGUAGE**

- Tamil
- English

## **Achievements**

- Zonal level Volleyball player
- Received a Scholarship for above 8.0 CGPA
- Mathematics topper in HSC in the School

## **PROFILE**

As a 3rd-year Artificial Intelligence and Data Science student at MEPCO Schlenk Engineering College, I am eager to leverage my Machine Learning, Data Analysis, and Web Development skills in a dynamic job role.

## **EDUCATION**

## **Bachelor of Technology**

MEPCO Schlenk Engineering College, Sivakasi

2022 - Present CGPA: 7.96 upto 5th semester

**HSC** 

K. M. K. A. Matriculation Higher Secondary School, Thiruthangal

2021 - 2022 Percentage: 87.167%

**SSLC** 

K. M. K. A. Matriculation Higher Secondary School, Thiruthangal

2019 - 2020 Percentage: 82.2%

## MINI PROJECTS

## **Deepfake Detection Using Combined Models**

Done in Internal Hackathon in SIH 2024

 Developed a deepfake detection system using Vision Transformer (ViT) and StyleGAN to analyze video frames and audio and determine if the content is real or fake. Used ViT to extract important features from images and StyleGAN to identify fake facial patterns. Combined both visual and audio information to improve accuracy. Built a data pipeline to extract frames, process them, and classify them efficiently. Implemented transfer learning to enhance model performance and improve detection speed. Optimized the system to handle large video datasets effectively. Designed a streamlined workflow for preprocessing, feature extraction, and classification, making the system more scalable and reliable.

Reference Link

#### **Image Enhancement using SRGAN**

Done in 5th Semester 10/2024 - 12/2024

Developed an image enhancement system using Super-Resolution Generative Adversarial Network (SRGAN) to upscale low-resolution images while preserving details and texture. Trained SRGAN on high-quality image datasets to generate realistic and sharp outputs. Implemented a custom data pipeline for preprocessing and training using images from a single folder. Optimized the model for faster and more accurate super-resolution results. Enhanced image quality by fine-tuning generator and discriminator networks, ensuring improved sharpness and clarity. Designed the system to work efficiently with real-world low-resolution images, making it suitable for applications in medical imaging, surveillance, and digital restoration.

Reference Link

# SATHIESH PRABHU R

#### **Transport Data System Management**

Done in 3rd Semester 10/2023 - 12/2023

 Developed a web application using Flask and MySQL that allows users to book vehicles for transportation. Implemented features for users to view available vehicles, make bookings, and receive confirmation. Designed a userfriendly interface for easy navigation and a seamless booking experience. Used MySQL to efficiently store and manage vehicle availability and user bookings. Ensured smooth interaction between the frontend and backend by handling user requests and database operations within Flask. Optimized database queries to improve performance and responsiveness.

Reference Link

#### Classification of chest Xray by CNN

Done in 4th Semester 03/2024 - 05/2024

 Developed a Streamlit-based web application for classifying chest X-ray images using a pre-trained CNN model. Enabled users to upload chest X-ray images and receive instant classification as either "NORMAL" or "PNEUMONIA." Integrated a deep learning model trained on medical imaging datasets to ensure accurate predictions. Designed an intuitive user interface for easy image uploads and result visualization. Optimized the model for efficient inference, ensuring fast and reliable classifications.

Reference Link

#### Recipe Recommendation in NoSQL database

Done in 5th Semester 10/2024 - 12/2024

 Developed a Flask-based web application that allows users to search, generate, and combine recipes using MongoDB and Cohere Al. Implemented functionality to search for recipe variants from a database and dynamically generate recipe instructions using Cohere if no matching variant is found. Integrated MongoDB for efficient storage and retrieval of recipe data, including ingredients and instructions. Designed an intuitive user interface for searching, viewing, and combining recipes with new ingredients. Optimized database queries and streamlined the workflow for recipe management, ensuring a smooth user experience.

Reference Link

#### LLaMa-3-RAG-Model(Chat with PDF)

Done for MEPEXPO'24

Developed a Streamlit-based web application for interacting with machine learning models and vector databases. Implemented functionalities for training, evaluating, and managing models through an intuitive web interface. Designed and integrated a vector database module to handle vector insertion, similarity queries, and database management. Ensured seamless setup and deployment by automating dependency installation and providing a structured workflow. Optimized application performance for efficient model execution and database operations, enhancing usability for real-world machine learning applications.

### Reference Link

#### My Simple Resume

 Developed a responsive personal resume webpage using HTML, CSS, and JavaScript, featuring a fixed navigation bar for easy access. Implemented a collapsible menu that transforms into a three-dot (...) navigation button on smaller screens. Optimized the layout for mobile and desktop viewing, ensuring a seamless user experience. Enhanced the design with flexbox styling, media queries, and interactive JavaScript features to improve usability and accessibility.

Reference Link

Note:

I hosted this project in my github.io you can click Reference link to see the Resume web page

#### **Insurance Company Prediction**

Done in 4th Semester 03/2024 - 05/2024

 Utilized data analytics techniques to process and analyze large datasets, extracting meaningful insights for decisionmaking. Applied machine learning algorithms to identify patterns and rank insurance providers based on performance metrics. Designed interactive visualizations to present comparative analysis, aiding customers in selecting the most suitable insurance provider. Optimized the model for accuracy and efficiency, ensuring reliable and data-backed predictions.