

Madhan Sai Thupakula

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Internship

Programming Pathashala summer Intern

Jun 2023 - Jul 2023

- Interned at Programming Pathashala, contributing to the development of various projects.
- Implemented a machine learning project focused on predicting heart diseases using the K-Nearest Neighbors (KNN) algorithm in Python and EDA.
- Utilized various Python libraries such as NumPy, Pandas, and Scikit-learn to preprocess data, build and train the KNN model, and evaluate its performance.
- Conducted thorough data analysis and feature engineering to extract relevant insights for accurate predictions.
- Collaborated with team members to deploy the prediction system and ensure its functionality and reliability.
- Documented the project process and results for future reference and knowledge sharing within the organization.

Projects

Violence Detection in CCTV Surveillance | Deep Learning

Dec 2025 - Feb 2025

- Developed a deep learning framework using CNNs and LSTMs to detect violence in real-time CCTV footage from the SmartCity CCTV Violence Detection Dataset achieving a 90% validation accuracy.
- Performed data preprocessing and augmentation with Python libraries like TensorFlow and NumPy
- visualized performance metrics using Matplotlib, improving model robustness by 15% in diverse urban scenarios.
- Optimized the model for edge deployment, achieving 45 frames/sec on Raspberry Pi 4 and 131 frames/sec on GTX1060, demonstrating scalability for smart city surveillance applications.
- Github Repository Link: <https://github.com/KSVPhanindra/AI-Powered-Violence-Detection>

Chat Emotion Analysis | Python, Deep Learning

Aug 2024 - Sep 2024

- Created a chat emotion analysis system to classify user messages into emotions like joy, anger, and sadness, achieving over 90% classification accuracy Using NLP.
- Preprocessed text data by removing stop words, tokenizing, and addressing imbalanced datasets to improve model performance..
- Built and trained deep learning models, including LSTM and CNN, resulting in a robust system for emotion detection.
- Visualized model performance and documented findings, laying the foundation for future improvements.
- Github Repository Link: <https://github.com/MadhanSaiThupakula/chat>

Architectural webdesign/ Html, CSS, JavaScript

Jan 2023 - Mar 2023

- Designed and Enhanced a responsive architecture website using HTML, CSS, and JavaScript, ensuring seamless user experience across devices.
- Optimized website performance through efficient CSS styling, lazy loading, and asynchronous JavaScript, reducing load time by 35%.
- Implemented dynamic UI elements, animations, and interactive features to enhance user engagement and navigation.
- Github Repository Link: <https://github.com/MadhanSaiThupakula/basicui>

Certifications

Basic Python with ML

June 2023 - Jul 2023

Programming pathashala - <https://drive.google.com/drive/folders/1FOeEgbgPmeBWHn1>

Operating Systems

Jan 2023 - Mar 2023

Coursera — https://drive.google.com/drive/folders/1FOeEgbgPmeBWHn1_aBF6ogaYuSFpK8vp

Computer Architecture

Mar 2022 - may 2022

udemy - https://drive.google.com/drive/folders/1FOeEgbgPmeBWHn1_aBF6ogaYuSFpK8vp

Technical Skills

Languages: Python, Java, C, HTML, CSS, JavaScript

Technologies/Frameworks: SQL, Tableau, Power Bi, Git

Skills: Data Structures and Algorithms, Responsive Web Design, Scripting in Python and JavaScript, Machine learning model

Education

Lovely Professional University, Punjab

2021 – 2025

Computer Science and Engineering — CGPA: 7.33

Narayana Jr college, Nellore

2019 – 2021

12th with Science — Percentage: 96.1%