Sai Pranav M

+91 8374488579 | msaipranav2004@gmail.com | Portfolio Website | In Sai Pranav | The pranav-85 | Hyderabad, Telangana - 500060, India

EXPERIENCE

• Hybrid Intelligence Lab, IIITDM [

Dec 2024 - Current

Research Intern

Chennai, India

- IoT Network Routing Research: Researched dynamic routing in IoT networks using the ESP-NOW protocol, optimizing communication and routing efficiency using the Bellman-Ford Algorithm.
- **Simulation with Pygame and Simulink:** Simulated network performance to evaluate and improve routing efficiency under varying network conditions.

EDUCATION

IIITDM Kancheepuram

Nov 2022 - July 2026

Bachelor of Technology in Computer Science Engineering

Chennai, India

o GPA: 8.18/10.00

• Narayana Junior College, TSBIE

2020 - 2022

Class 11 and 12

Hyderbad, India

o Grade: 967/1000

• Panineeya Mahavidyalaya Public School, CBSE

2020

Hyderabad, India

o Grade: 461/500

PROJECTS

Class 10

• Gender Classification Using Deep Learning on Facial Images

Tools: Tensorflow, OpenCV

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- Implemented a CNN-based model on the 'All Ages Faces Dataset', achieving 50% accuracy initially with a CNN, improved to 85% accuracy using VGG pre-trained model.
- Enhanced using techniques from the research paper "Deep Learning Based Approach for Gender Classification" including dlib preprocessing and VGG architecture.

Note-taking Web Application

Tools: React.js, Django, MySQL, Django REST framework

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- Built a full-stack note-taking app using Django REST for backend, React for frontend, and MySQL for data storage.
- Implemented features like note creation, editing, deletion, pinning, secure authentication, and sorting by pin status and creation date.

OCR-Driven Document Extraction Web Application

Tools: React, Flask, Roboflow, HuggingFace



- Developed a React and Flask-based web app providing OCR services for extracting key details from scanned driver's license images.
- Enhanced text extraction accuracy through image preprocessing and integrated Roboflow 3.0 object detection for improved results.

SKILLS

- Programming Languages: C, C++, Python, Javascript, MATLAB
- Web Technologies: HTML, CSS, Javascript, React.js, Django
- Database Systems: MySQL
- Data Science & Machine Learning: NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn, Tensorflow, OpenCV
- Other Tools & Technologies: Power BI, Google Sheets, Selenium, Simulink
- Other Skills: Object Oriented Programming, Data Structures and Algorithms, Socket Programming, Web Scrapping

LEADERSHIP/VOLUNTEER EXPERIENCE

• Core, MATLAB Divsion System Coding Club, IIITDM Kancheepuram	June 2024 - Current
• Quality Management Team Member Vashisht 2024, IIITDM Kancheepuram	Feb 2024
• 11th Convocation Volunteer IIITDM Kancheepuram	July 2023
CERTIFICATIONS	
Advanced Learning Algorithms, DeepLearning.AI	June 2024
• Supervised Machine Learning: Regression and Classification, DeepLearning.AI	June 2024
Machine Learning Onramp, Mathworks	Aug 2024