MALHAR INAMDAR

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EDUCATION

Pune Institute of Computer Technology, India   Sep 2023 - 2027
BE Bachelor of Engineering in Electronics and Telecommunications   *9.23/10.00*

Coursework: Data Structures, CAD, Digital Circuits, Arduino, Engineering Mathematics

MOOCS: Machine Learning Specialisation, Deep Learning Specialisation

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Javascript

Tools & Frameworks: PyTorch, Tensorflow, Langchain, NumPy, Pandas, OpenCV, Scikit Learn, spaCy, NodeJS, Firebase

Software: Git, Github, Flask, VS Code, Streamlit

EXPERIENCE

Vizuara   Oct 2024 – Present
Research Intern   *Pune, India*

- Analysing if certain languages are inherently more complex than the other by conducting research in developing Small Language Models to improve the comprehension of regional Indian languages enhancing inclusivity in linguistically diverse context.

Pune Institute of Computer Technology   Sep 2024 – Present
Research Intern   *Pune, India*

- Conducting research on improving diagnostic efficiency in diabetes prediction using explainable AI tools like LIME and SHAP.

PICT Robotics   Oct 2023 – Present
Technical Member   *Pune, India*

- Core technical member of the Robotics Club of the college, contributing for ABU Robocon 2025, national level robotics competition.
- Built multiple robots with esp32, sensors and motors like line following, ultrasonic sensor robot.
- Designed PCB circuits and Fusion360 CAD Designs for robot designing.

PROJECTS

MCQ Generator Webapp   Github Link
Streamlit, Gemini LLM   *Website*

- Webapp built for generating multiple choice questions by analysing a piece of text to be input by the user in .txt or pdf format.
- The mcqs generated can be in varying order of difficulty as per the choice of user, easy, medium or hard.
- Number of questions are also to be input by the user as per their requirement.
- Used gemini-1.5-flash model, planning to replace it with T5 and BERT models using NLP.

DiabetesCare AI   Github Link
Streamlit, Scikit Learn, GridSearch, RandomForest, NumPy, Pandas, seaborn, Gemini LLM   *Website*

- Webapp for diabetes Prediction using machine learning based on multiple parameters including height, weight, blood sugar, smoking history, haemoglobin.
- Implemented SMOTE(Synthetic Minority Oversampling Technique) for handling imbalanced dataset and tuned hyperparameters using GridSearch for optimising accuracy. Achieved high accuracy of the model 94%
- Patients detected positive are provided helpful suggestions using gemini-1.5-flash LLM model.
- Q&A Chatbot provided to solve patient queries with chat history saved for anytime access.

Harvestify Github Link

Streamlit, Scikit Learn, Logistic Regression, NumPy, Pandas, seaborn, matplotlib *Website*

- Webapp for agricultural crop recommendation using machine learning. The user can provide the soil data from their side and the application will predict which crop should the user grow.
- The input parameters include nitrogen, phosphorus, potassium content, temperature, humidity, ph and rainfall. Achieved high accuracy on the logistic regression model 95%.
- Used logistic regression algorithm for its working since the output (crop) was fixed having 20 specific crop types and the input parameters could vary.

Awards

Cretronix Runner-up Credenz'24 April 2024

- Our team of two, was the runner-up in the electronics circuit and microcontroller programming competition at PICT IEEE's annual technical fest Credenz.