## PARTAB RAI

## **Data Scientist**

AI&Machine learning Engineer

Monthly rates: \$2500

Hourly rates: \$20



## PERSONAL STATEMENT

- Love to play with data, analyzing and visualizing it to explore valuable insights from the data.
- Having a passion to understand, preprocess and train the data with suitable evaluation and tuning.
- Having a problem-solving and innovative mind with an excitement to grow and enhance data science and machine learning skills.

#### **EXPERIENCE**

- SOCSolutionsPVTLTD.
  AI / ML Engineer
  October, 2023 Present
- BAWDICSOFT PVT LTD.
  Junior Artificial Intelligence Engineer
  October, 2019 September 2023
- NCAI NationalCentreOfArtificial Intelligence, NEDUET, KARACHI, PAKISTAN

Intern – Machine Learning February, 2019 - July, 2019

#### **EDUCATION**

UNIVERSITY OF KARACHI (UBIT), KARACHI, PAKISTAN.
 Bachelors Of Computer Science, January 2015- 1th January 2019. (CGPA: 3.31)

## **PROIECTS**

## DATABRICKS PROJECT(LLM Chatbot)

- 1. This is an Artificial Intelligence (AI) project based on Machine Learning (ML) implementation phases. The user will provide a CSV or XLSX file, along with prompts related to the data in the file. The project will follow the complete machine learning workflow. First, the CSV file will be loaded and visualized with the provided data. The system will automatically determine and run the most suitable machine learning model for the training phase. Once the training is completed, the system will transition to the prediction phase using a Large Language Model (LLM) for the final output.
- Real-Time Analysis: One of the core features is real-time analysis with graphical representation. The system will generate a graph based on the data and prompts provided. Following the graph, an analysis response will be generated, which will be processed through an LLM for further insights.

3. API & User Interface: The project will be developed with a backend API using Django in Python and a frontend user interface using React.js. This setup will allow smooth interaction between the user and the AI system for data input, visualization, and real-time analysis.

## RAG Chatbot through VECTORE DATABASE and LLM

- 1. This is Artificial Intelligence Project based On RAG project. The USER is provide A CSV or xlsx file or Other Document . its prompts who related to CSV or XLSX file. Get insight result from document. this is Q/A chat bot. Document Embedding Save in Vector store Database(PineCone, Chromadb, Qdrant)
- 2.It Implementation on OLLAMA means it runs on CPU.
- 3. Create with User Interface with Streamlit.

#### **FACE DISEASE PROIECT**

- 1. This is Android Application Project .The Model Train many FACE Disease Classes(ACNE, PIMPLE)
- 2. Integrated Model Save File with Flutter Framework to build Android Application.

#### LONG NET

1. This is based on PYTORCH project. Build a large language model who take trillon token in window context length. The training phase goes on multiple GPU server.

## FINE TUNNING OF LLAMA2 WITH CUSTAM DATA

- 1. it has trained on llama-2 7b model. I got access from Meta then fine tuning with own custom data with transformers and Accelerate Libraries which access from Hugging Face.
- 2. URL(https://boft11.streamlit.app/) it is chat bot like as chatGPT .Fine Tunning with LoRa Config and its Quantization.

#### HEART DISEASE DETECTION SYSTEM

1. This is Artificial Intelligence based Binary class classification project coded using scikit-learn. The problem is to find out whether a person or patient has a heart disease or not. This artificial intelligent program (machine learning) can be a fantastic solution to figuring out whether a patient has a heart disease by using complex programming and statistical techniques.

2. The classification models such as Random-Forest, K-Neighbors and Logistic regression classification models are coded to compare which model gives the best result for heart disease data training.

## FACIAL RECOGNITION SYSTEM

1. This project is based on multi class image classification problem having 7 classes (Neutral, angry, sad, happy, fear, surprise, disgust). The model is used to identify facial expressions of human being. The deep learning model is trained on a data set containing 35,000 images of human face download from Kaggle. A pre-trained model "Mobile Net" is used for deep neural network training.

## FOOD VISION PROJECT USING TENSORFLOW

1. food vision is a food detector app with more than 100 classes of dishes. The model identifies the food and name of food in output when an image is provided. This is a multi class image classification problem built upon deep neural networks.

## TEXT TO IMAGE USING GENERATIVE AI

1. The user give prompt as input the output is image relative to text input .the model use hugging face API for generative ai model

#### DATA ANALYSIS WITH COVID DATA

1. This Classification and Analysis Show Majority of peoples effected in country wise .Die or Recover. ML model predict three labels: Normal effected or highly effected or infected using Question about virus. Treatment suggest text based on predict label

## TIMESERIESFORECASTING-OF-BITCOIN-PREDICTION

1. we chooseLSTM model to implement the future values of bitcoin price per days. Analysis with Financial data of bitcoin.

#### DOG BREED IDENTIFICATION SYSTEM

- 1. This is an Artificial Intelligence based Deep learning project that builds an end to end multi-class image classification model using Tensor Flow 2.0 and Tensor Flow Hub.
- 2. This project is used to predict the particular breed of a dog when an image of dog is provided.
- 3. The data set contains around 20,000 images of dogs of 127 different dog breeds.
- 4. The data set for deep learning is taken from Kaggle's Dog breed identification competition

machine learning experimentation for example tracking and visualizing metrics such as loss and accuracy. Check my GITHUB profile for more projects. .

## SKILLS

# MACHINE LEARNING/DEEP LEARNING VISUALIZATION

- Scikit-Learn
- Tensorflow/Tensorflow Hub
- Transfer Learning
- Classification/Regression
- Image classification and Text classification
- Natural Language Processing
- Computer Vision
- Time Series Forecasting
- Convolutional Neural Networks (CNN)
- Recurrent Neural Networks (RNN)

#### **SOFT SKILLS**

- Documentation (Research papers/Reports)
  Communication skills
- · Working with Team, Time management

#### **DATA ANALYTICS**

Numpy Pandas

Pandas Microsoft Excel Matplotlib Seaborn Bokeh

DATA

Microsoft Power BI

WEB FRAMEWORKS DATABASE

Flask Microsoft SQL Server

Django SQL

HTML/CSS Microsoft Access

React JS

## **CLOUD SERVICE**

Microsoft Azure

Azure Machine Learning Studio

Sage Maker ML AWS

## UI/UX DESINGING

Figma Presentation,

## **PROGRAMMINGLANGUAGES**

- Python (Expert)
- SQL (Expert)
- C#/C++ (Intermediate)

## JavaScript(Intermediate)

## **CERTIFICATION**

- AI for everyone (COURSERA)
- TensorFlow Developer Certificate: Zero To Mastery (UDEMY).
- Introduction to Python(Data Camp).
- Machine Learning at National Centre Of Artificial Intelligence (NCAI), NEDUET.
- Getting Started with Deep Learning (NVIDIA).
- . What is Data Science by IBM (COURSERA).
- Data Science and AI from Mass-IT Saylani Training Program.

## **ACHIEVEMENTS**

- Awarded as a Runner Up at National Idea Bank Competition.
- Got HEC Scholarship from University of Karachi.
- Awarded from Code for every One



