Problem Predict the fare of taxi ride in chicago, illinois

Steps ① Setup

→ libraries to Install

① pip install numpy ~= 2.0.0
matplotlib ~= 3.10.0
pandas
tensorflow
keras

② Load dependencies
import io

```
#data
import numpy as np
import pandas as pd

# Machine Learning
import Keras

# Visualization
import plotly.express as px
from plotly.subplots import make_subplots
import plotly.graph_objects as go
import seaborn as sns.

# create dataframe using pandas
chicago_taxi_dataset = pd.read_csv("....csv")

# using specific columns from dataset
```

This will help get features from the data → keep the data

> training_df = chicago_taxi_dataset['trip_miles', 'trip_seconds',

'fare', 'company',

'payment_type', 'Tip_rate']]

> training_df.head.

View dataset Statistics

dataframe.describe

→ training_df.describe (include = "all")

Correlation Matrix

* Determining which features correlate with labels

→ 1.0 → when one correlation raises the other raises.

→ -1.0 → Negative correlation when attribute raises the other falls

→ 0.0 → → No correlation → Not linearly related.

* View Pair plot

sns.pairplot(training_df, x_vars = ["fare", "trip_miles", "trip_seconds"]

TRAINING MODEL

* Define functions to view model information

→ Scatter plot of

features Vs the label

showing the output of the trained model

→ Loss curve