# **SOHAM MUKHERJEE**

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# **SUMMARY**

Data Science (M.Sc.) student with experience in Machine Learning, Deep Learning, and a strong focus on AI. Skilled in Python, SQL, PowerBI, Statistical Analysis, Neural Networks, Computer Vision, and Natural Language Processing. Passionate about using AI to solve complex, data-driven challenges.

#### **SKILLS**

- Power BI Desktop
- Power BI Service
- Power Query (M- Query)
- DAX

- MySQL
- Python
- Data Cleaning
- Data Modeling
- Data Visualization
- Data Storytelling
- Statistical Analysis
- NII D

- Neural Networks
- Computer Vision
- Problem Solving
- Quick Learner

#### **PROJECTS**

# **Automatic License Plate Detector | GitHub**

- License plate detection after fine-tuning a pre-trained YOLOv8 model on our custom dataset.
- Text extraction using *Tesseract* OCR to recognize the license plate numbers.
- Visualizing detected plates and extracted text in the web interface built using *Streamlit*.

#### Hollywood Movie Recommender | GitHub

- Used content-based filtering and Natural Language Processing with cosine similarity to recommend similar movies based on genres, keywords, cast, and crew data.
- Integrated the TMDb API to fetch movie details and posters, with data preprocessing involving merging datasets, stemming, and text vectorization.
- Displays movie recommendations through a Streamlit web app.

#### Food Detector | GitHub

- Initial classification with a CNN baseline model.
- Transfer learning with EfficientNet and ResNet, and enhanced via data augmentation.
- Fine-tuned pre-trained models to get better results.

#### WhatsApp Chat Analyzer | GitHub | URL

- Preprocess WhatsApp chat data and display key statistics (total messages, words, media, links).
- Visualize user activity with timelines and heatmaps.
- Generate word clouds and analyze emojis using Python's WordCloud library.

# Flights Dashboard | GitHub

- Built using Python's *Streamlit* library for an easy and seamless interaction.
- Fetches data from a real-time database hosted on AWS using Python's mysql.connector library.
- Provides a user interface for checking what flights are available from a given city to another city (eg., Kolkata to Bengaluru).

# **CERTIFICATIONS**

- Python for Data Science & Machine Learning [*Udemy (URL)*]
- TensorFlow Developer Certification [Zero to Mastery (URL)]
- MySQL Bootcamp [*Udemy* (*URL*)]
- Certification of Statistics & Probability using Python [Infosys Springboard (<u>URL</u>)]

# **EDUCATION**

Master of Science (M.Sc.) in Data Science & Analytics NSHM College of Management & Technology Bachelor of Science (B.Sc.) in Data Science iLEAD

(2023-present)

(2020-2023)