# Manish Kumar Mahto

# Machine Learning Engineer

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## **SUMMARY**

Entry-level Data Scientist with strong foundations in Python, ML, Deep Learning, and Generative AI frameworks (LangChain, RAG, Transformers). I bring the ability to build and deploy intelligent AI solutions that improve efficiency, enhance decision-making, and deliver measurable business value.

#### **EXPERIENCE**

KagglePro LLC Sept 2024 – present

Data Science intern

LATHROP, CA

- Model Development: Designed and optimized 5+ ML/DL models for structured and unstructured datasets, achieving up to 12% improvement in predictive accuracy compared to baseline.
- Pipeline & Collaboration: Contributed to end-to-end data pipelines, 20+ code reviews, and internal bootcamp notes, improving team productivity and reducing debugging time by 15%.
- Advanced AI Prototyping: Applied Transformers, LangChain, and RAG pipelines to develop 2 intelligent prototypes, showcasing practical applications of retrieval-augmented generation in real-world use cases.

## TECHNICAL KNOWLEDGE

- Programming Languages: Python, SQL, Java
- Data Science Libraries: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, XGBoost, Streamlit
- Deep Learning Frameworks: TensorFlow, Keras, PyTorch, Sklearn
- Machine Learning Techniques: Regression, Classification, Clustering, Feature Engineering, Model Deployment, Time Series Forecasting
- Deep Learning Techniques: ANN, CNN, RNN, LSTM, GRU, Transformers, GANs
- Databases: MySQL, ChromaDB
- Data Engineering: Data Cleaning, Data Pipelines, Exploratory Data Analysis (EDA)
- AI Frameworks: LangChain, RAG Systems, Retrieval-Augmented Generation, Generative AI
- Tools & Platforms: Git, GitHub, Jupyter Notebooks, Excel
- Mathematics & Statistics: Probability, Statistics, Linear Algebra, Calculus

# **PROJECT**

Movie Recommendation System Github (Python, Pandas, Scikit-learn, Streamlit, and Google Colab)

- Content-Based Recommendation Development: Built a personalized movie recommendation engine using text vectorization and cosine similarity, improving memory efficiency by 75%.
- Optimization & Deployment: Designed and deployed an interactive Streamlit web app that delivers real-time recommendations with detailed movie insights, enhancing user experience and engagement.

Quora Duplicate Question Pair Github (Numpy, Pandas, Matplotlib, Seaborn, nltk, Scikit learn, Xgboost)

- Duplicate Question Classification: Developed a machine learning model to detect duplicate question pairs from the Quora dataset, achieving 78% accuracy using a Random Forest Classifier.
- Feature Engineering & Text Processing: Engineered custom linguistic features (e.g., common word ratios) and applied advanced text processing techniques such as fuzzy string matching and text vectorization, improving model robustness.

### **EDUCATION**

Ranchi University Bachelor of Science in Information Technology