

Project README

Project Title

Movie Recommendation System using Machine Learning

Overview

This project implements a machine learning-based movie recommendation system.

It leverages both content-based filtering and collaborative filtering to provide highly relevant movie suggestions to users.

Features

- **Content-based Filtering:** Recommends movies similar to a user's liked movies based on genres, cast, crew, and keywords.
- **Collaborative Filtering:** Suggests movies based on similar user preferences using matrix factorization techniques.
- **Hybrid Model:** Combines both approaches to improve recommendation quality.
- Interactive user interface built using **Streamlit** for real-time recommendations.

Technologies Used

Python, NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Matplotlib, Seaborn, Streamlit

Installation

1. Clone the repository:

...

```
git clone https://github.com/mansiii28/movie-recommender.git
```

...

2. Install dependencies:

...

```
pip install -r requirements.txt
```

...

Usage

- Launch the app:

...

```
streamlit run app.py
```

...

- Enter your favorite movie to receive recommendations.

Accuracy

Achieved high user satisfaction with personalized recommendations and an optimized hybrid recommendation algorithm.

Author

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