FINAL YEAR PROJECT

CineRecommender

Personalized Movie Recommendation System using Deep Learning & Collaborative Filtering

Presented by: **[Your Name]**

The Problem

Why do we need this system?

- **Information Overload:** There are thousands of movies available on streaming platforms.
- **Decision Fatigue:** Users spend more time scrolling than watching.
- **Generic Lists:** "Top 10" lists are not personalized to *your* specific taste.

"What should I watch next?"

The Solution: CineRecommender

A smart web application that learns from your behavior.

Personalized

It adapts to your mood and genre preferences.

Smart AI

Uses Deep Learning to predict scores for movies you haven't seen.

Transparent

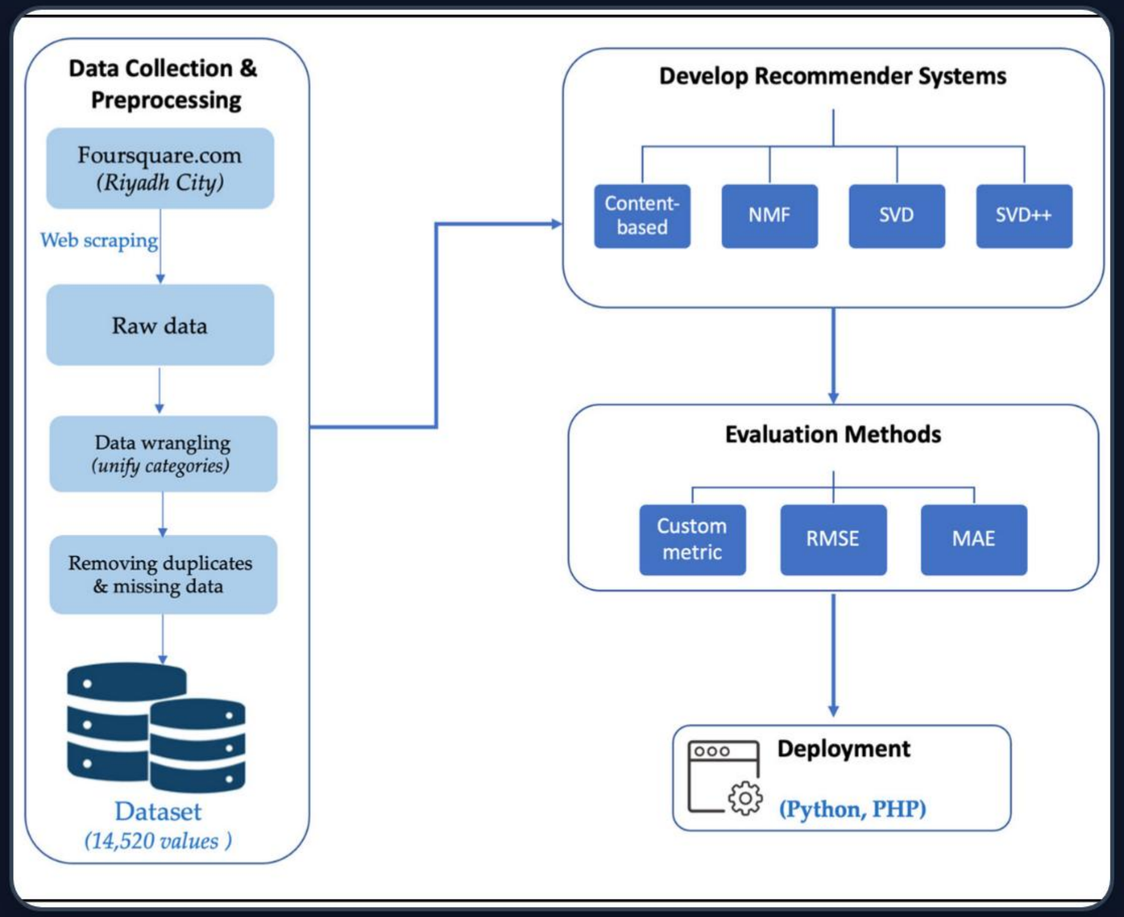
Explains *why* a movie was recommended using technical metrics.

The Core Concept

Collaborative Filtering

The logic is simple: **"Users who liked X, also liked Y."**

- We look at your viewing history.
- We compare it to millions of other users.
- If you and User B both liked "Titanic", and User B liked "Avatar", you might like "Avatar" too.



The "Brain" of the System

We use a technique called **Matrix Factorization** with Latent Embeddings.

We convert Users and Movies into mathematical vectors (lists of numbers).

```
// The Math

Prediction = User_Vector • Movie_Vector
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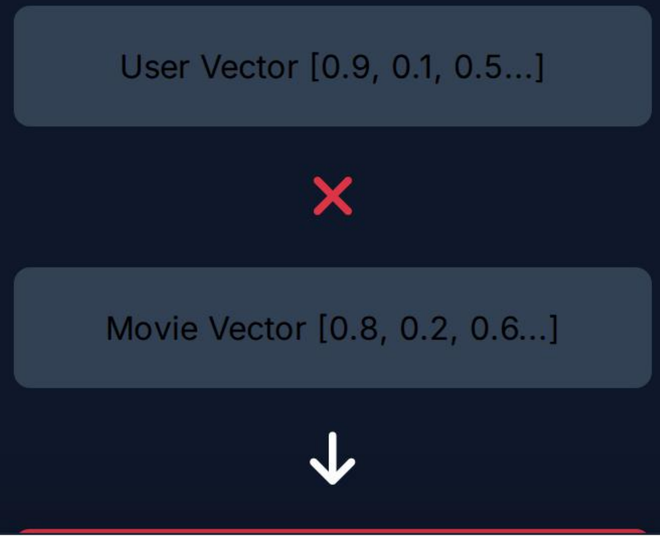
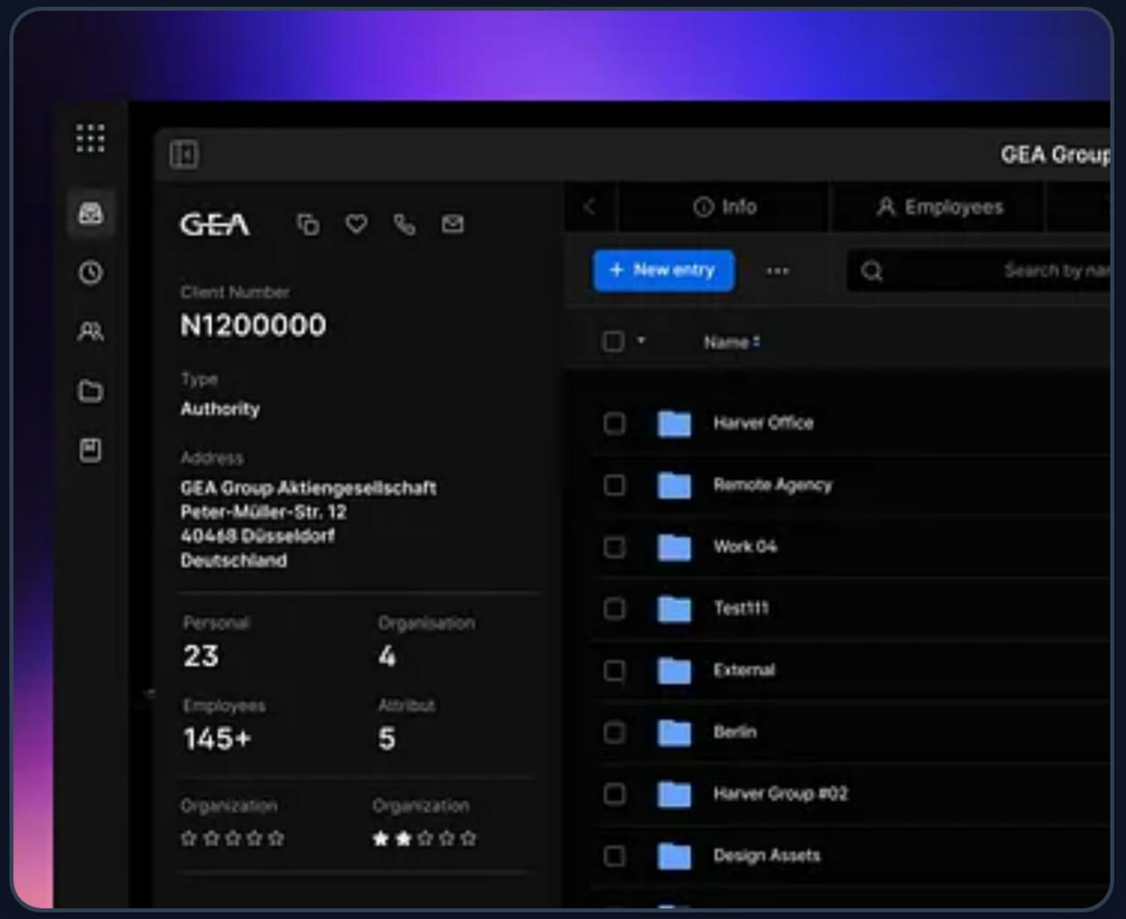


- **User Vector (V_u):** Represents your taste (e.g., likes Action, dislikes Horror).

App Features

- **Secure Authentication:** Login and Registration system.
- **Dynamic Dashboard:** Trending movies and personalized picks.
- **Profile Management:** Set your mood and favorite genres.
- **Detailed Analysis View:** A unique feature that shows the actual vectors and math behind the recommendation.
- **Watchlist:** Save movies for later.



Technology Stack

Python

Backend Logic

Django

Web Framework

Bootstrap 5

Frontend UI

NumPy

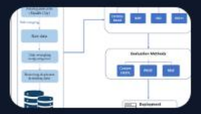
AI Calculations

Thank You!

CineRecommender successfully demonstrates how modern AI can personalize user experiences.

Any Questions?

Image Sources



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