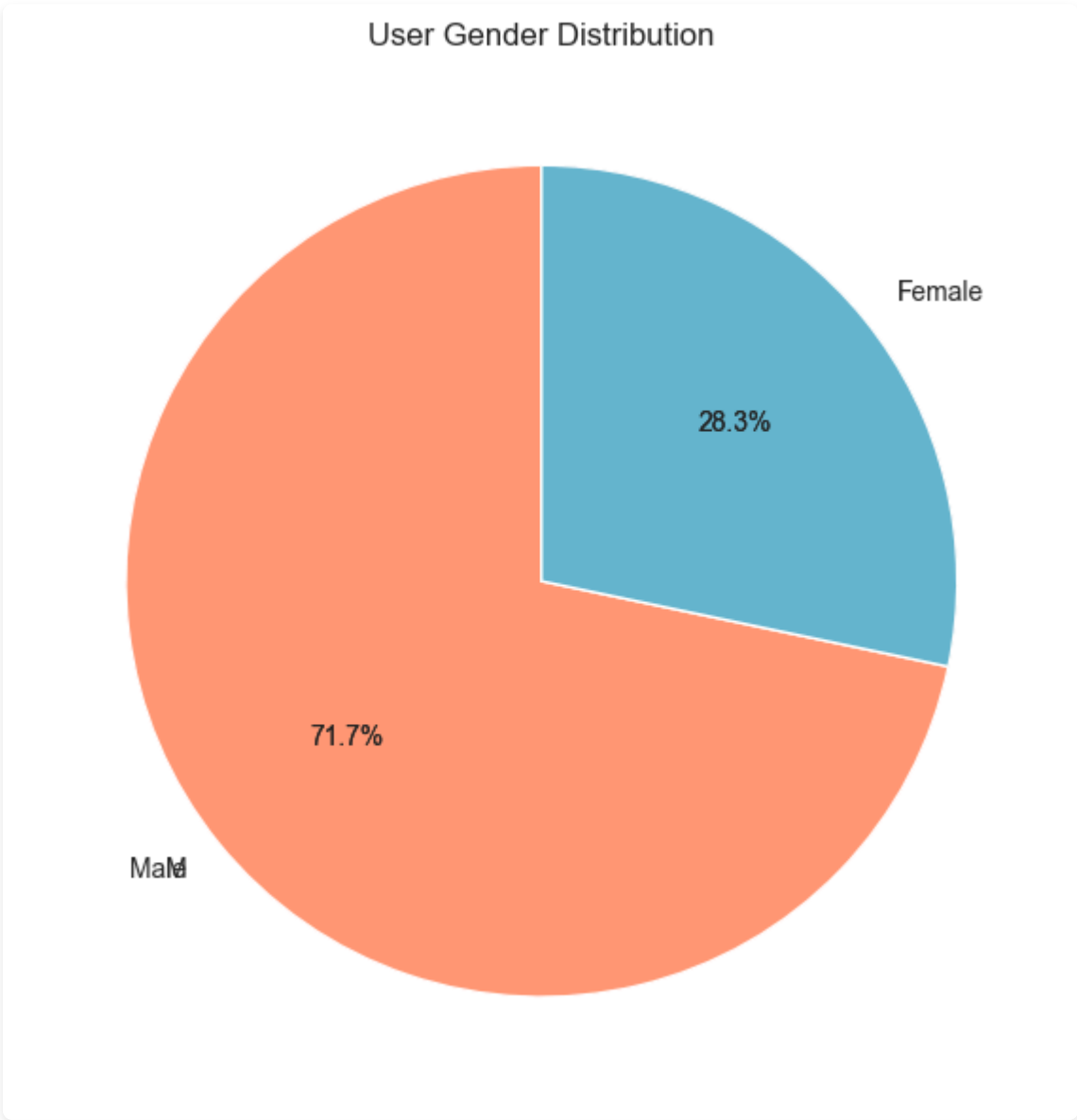


# MovieLens Dataset User-Movie Preference Analysis Report

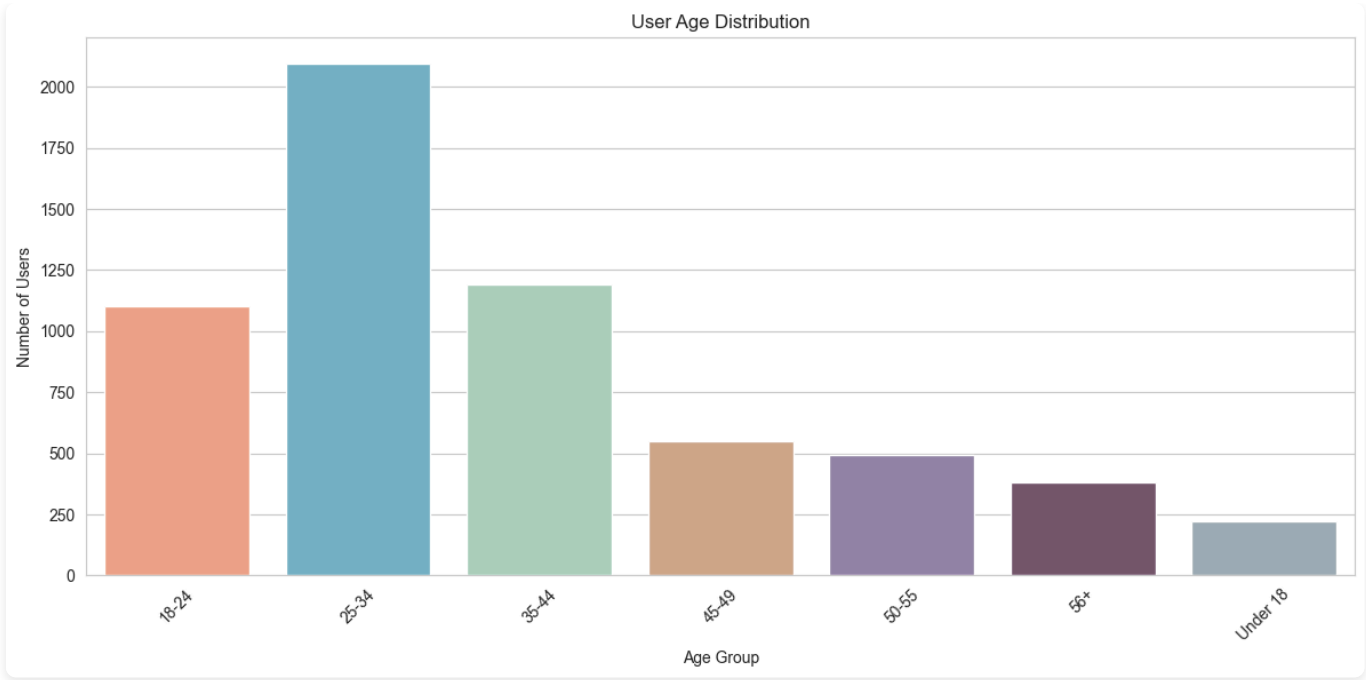
## Data Overview

This analysis is based on the MovieLens dataset, containing 6040 users, 3883 movies and 1000209 original rating records.

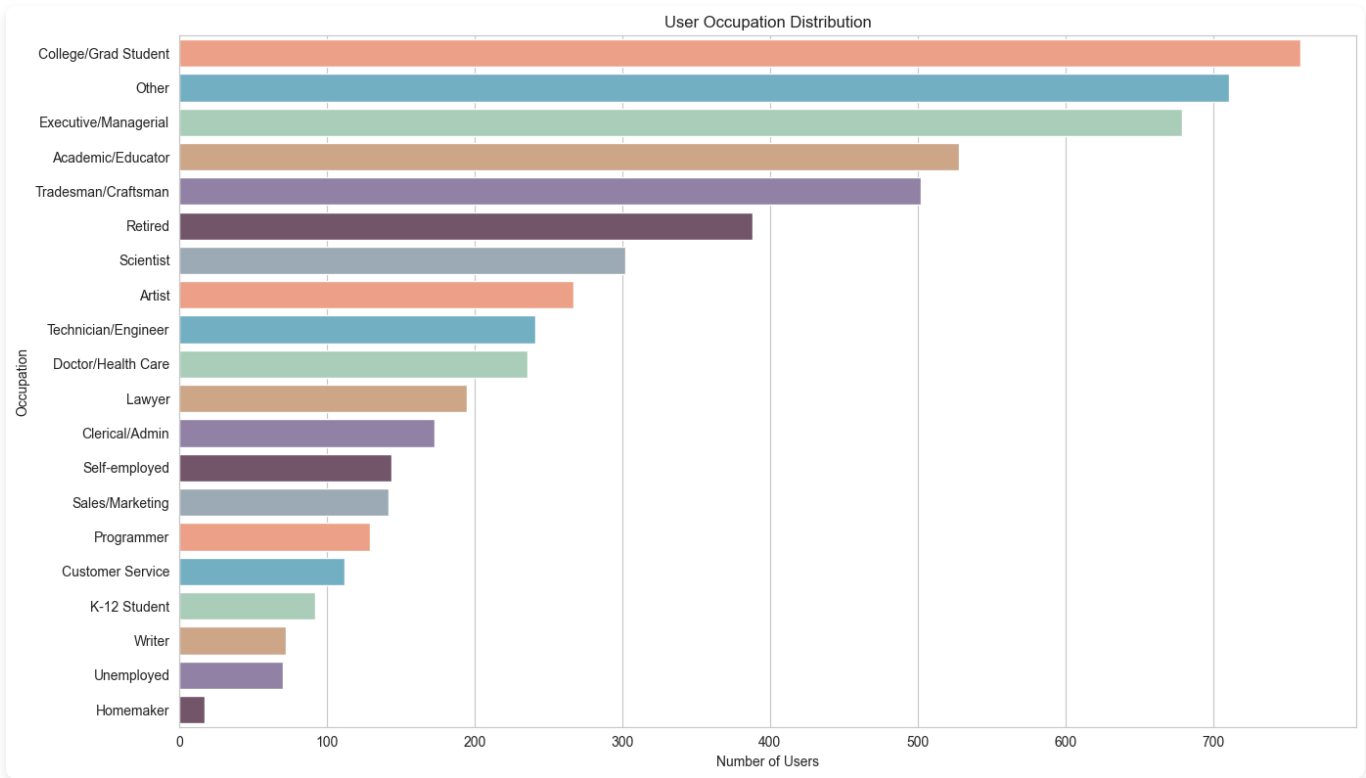
## User Profile Analysis



User Gender Distribution

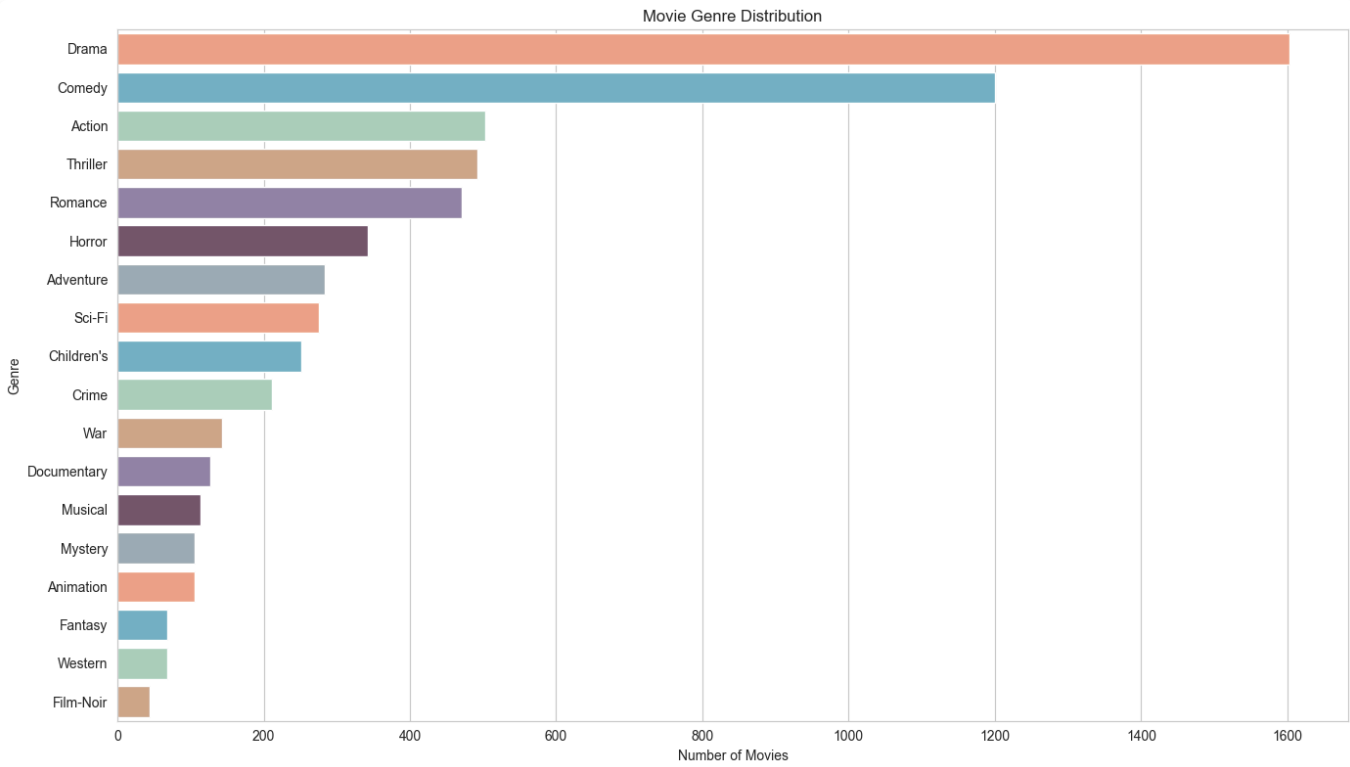


User Age Distribution

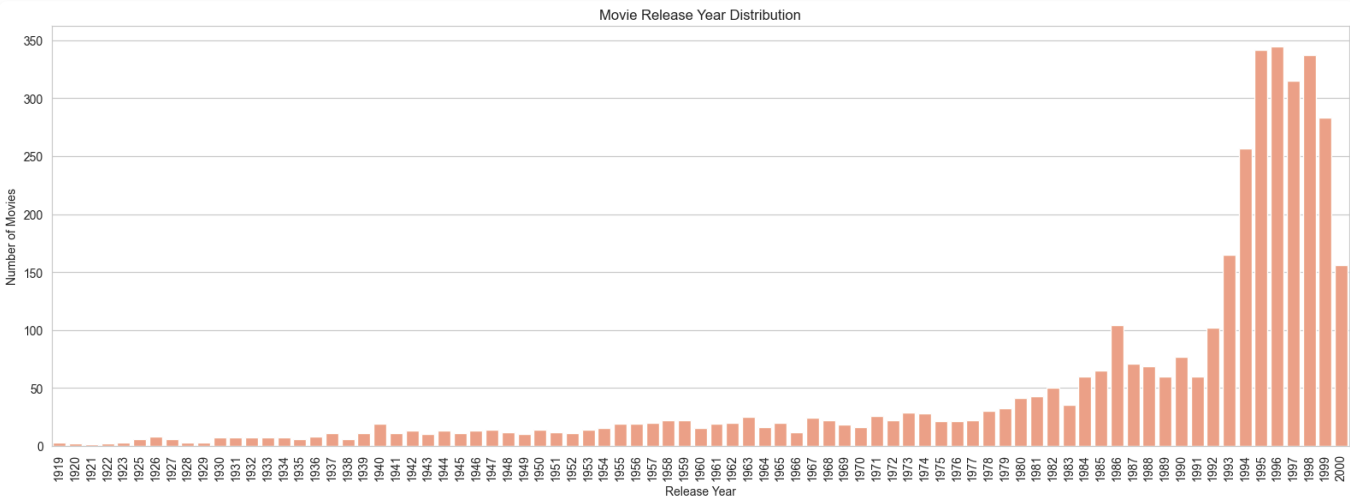


User Occupation Distribution

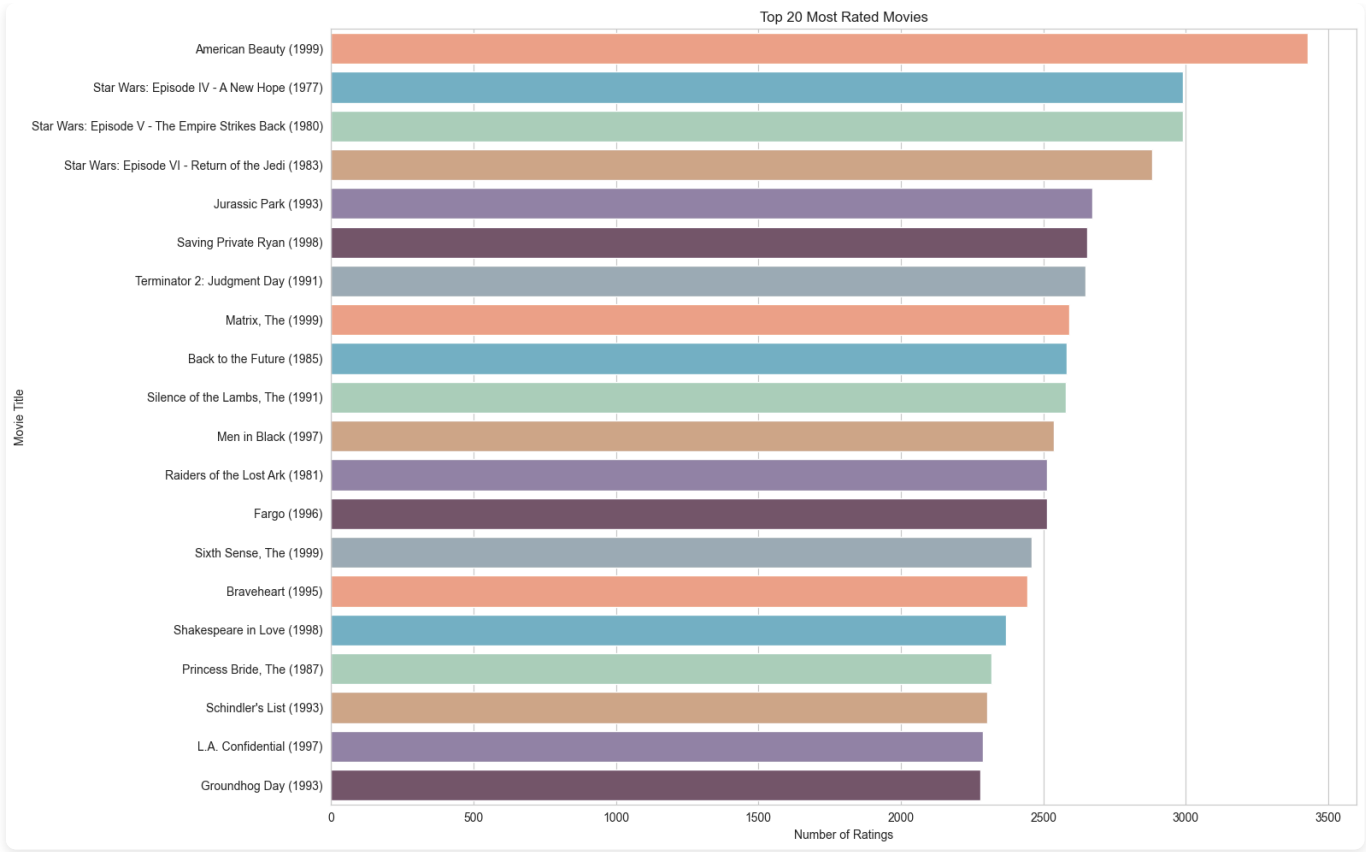
# Movie Distribution Analysis



Movie Genre Distribution

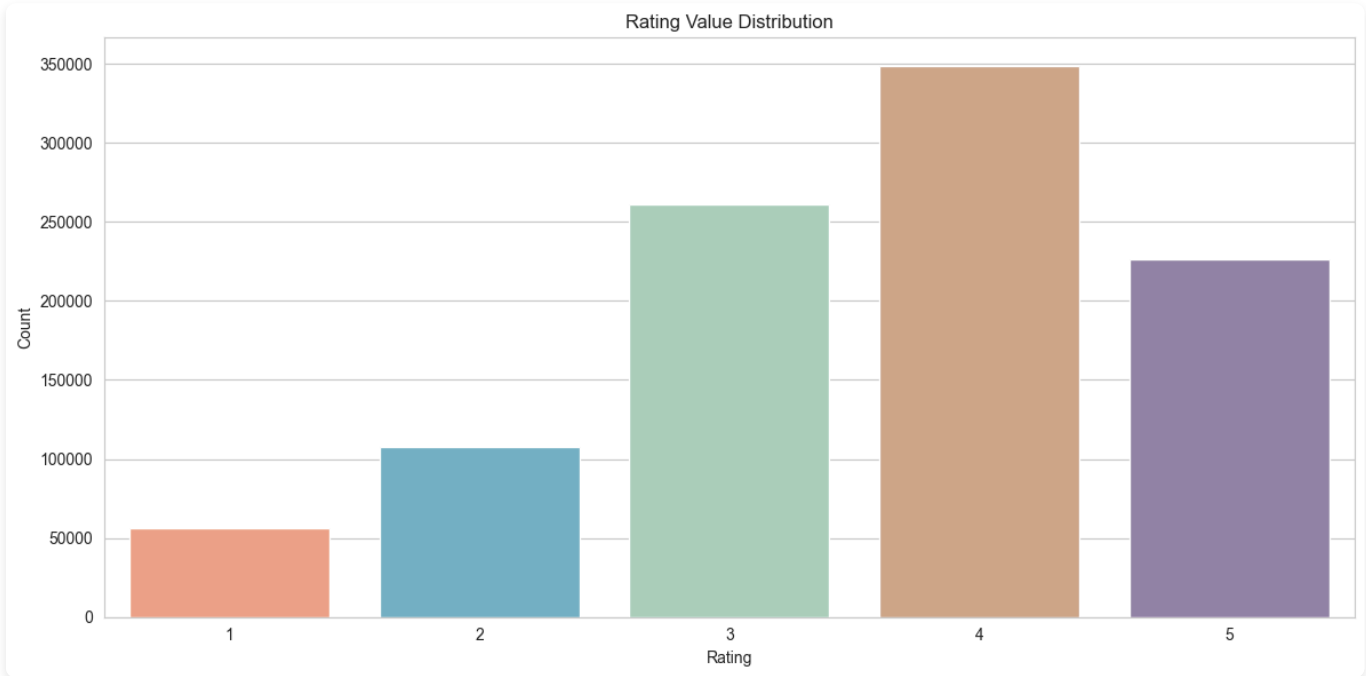


Movie Release Year Distribution

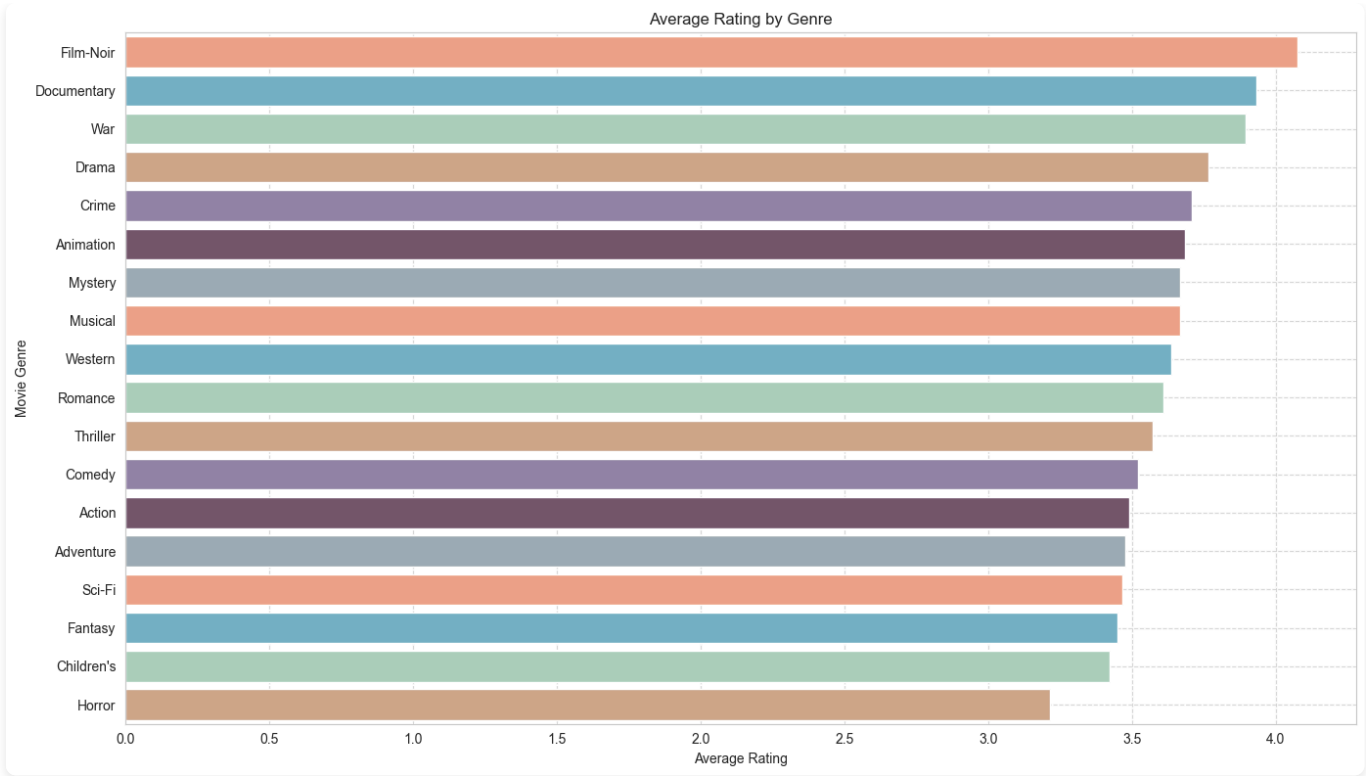


Top 20 Most Rated Movies

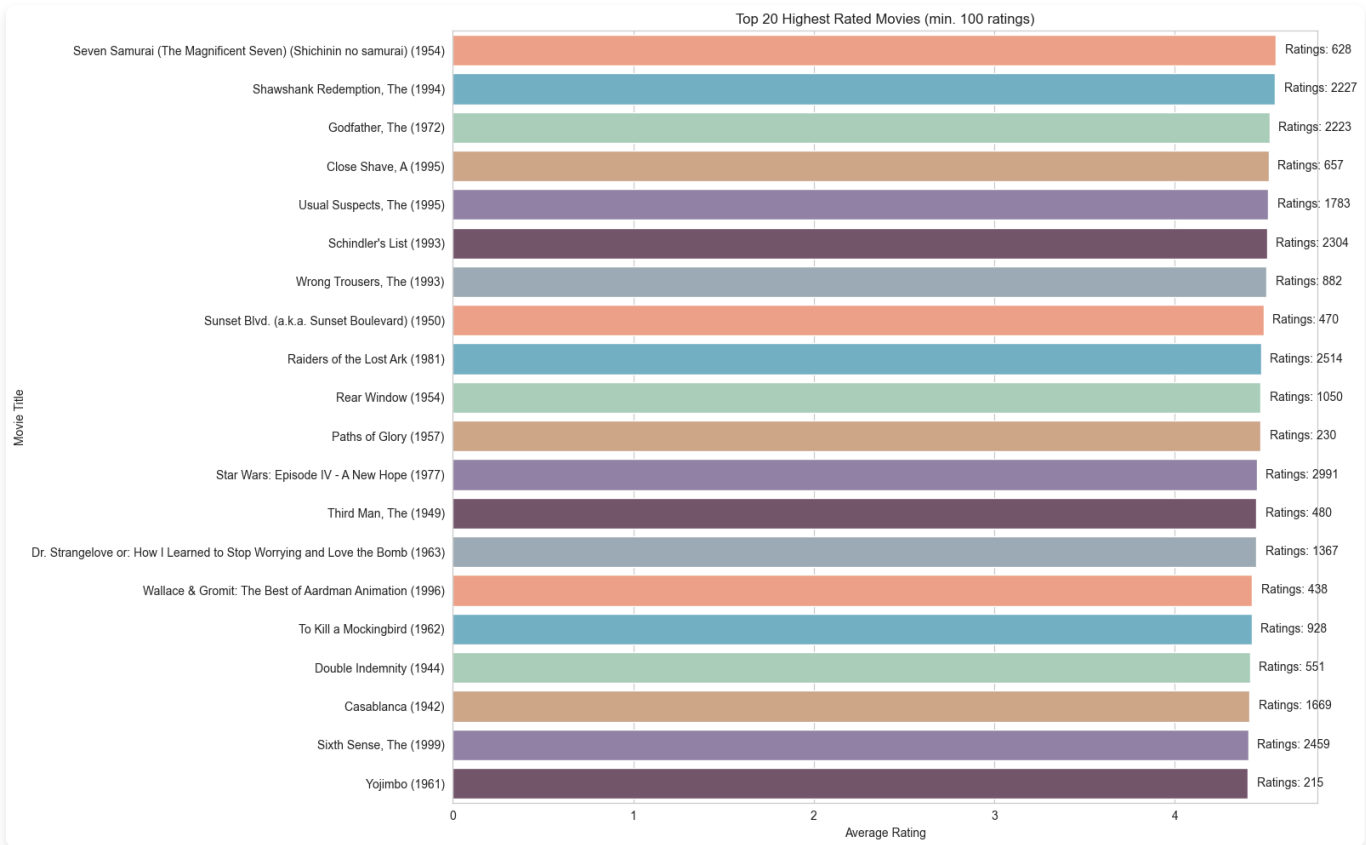
# Rating Distribution Analysis



Rating Distribution



Average Rating by Movie Genre

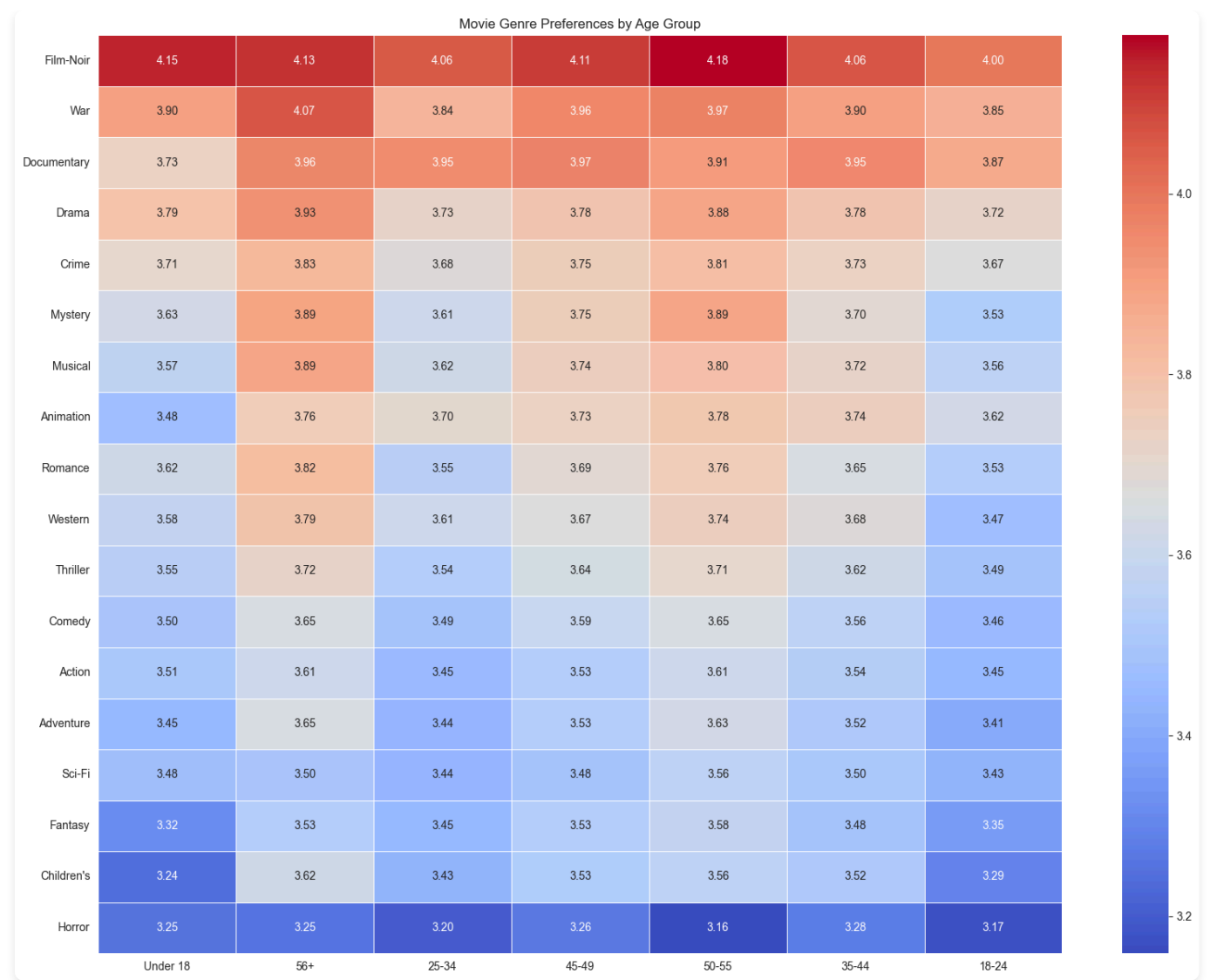


Top 20 Highest Rated Movies (min. 100 ratings)

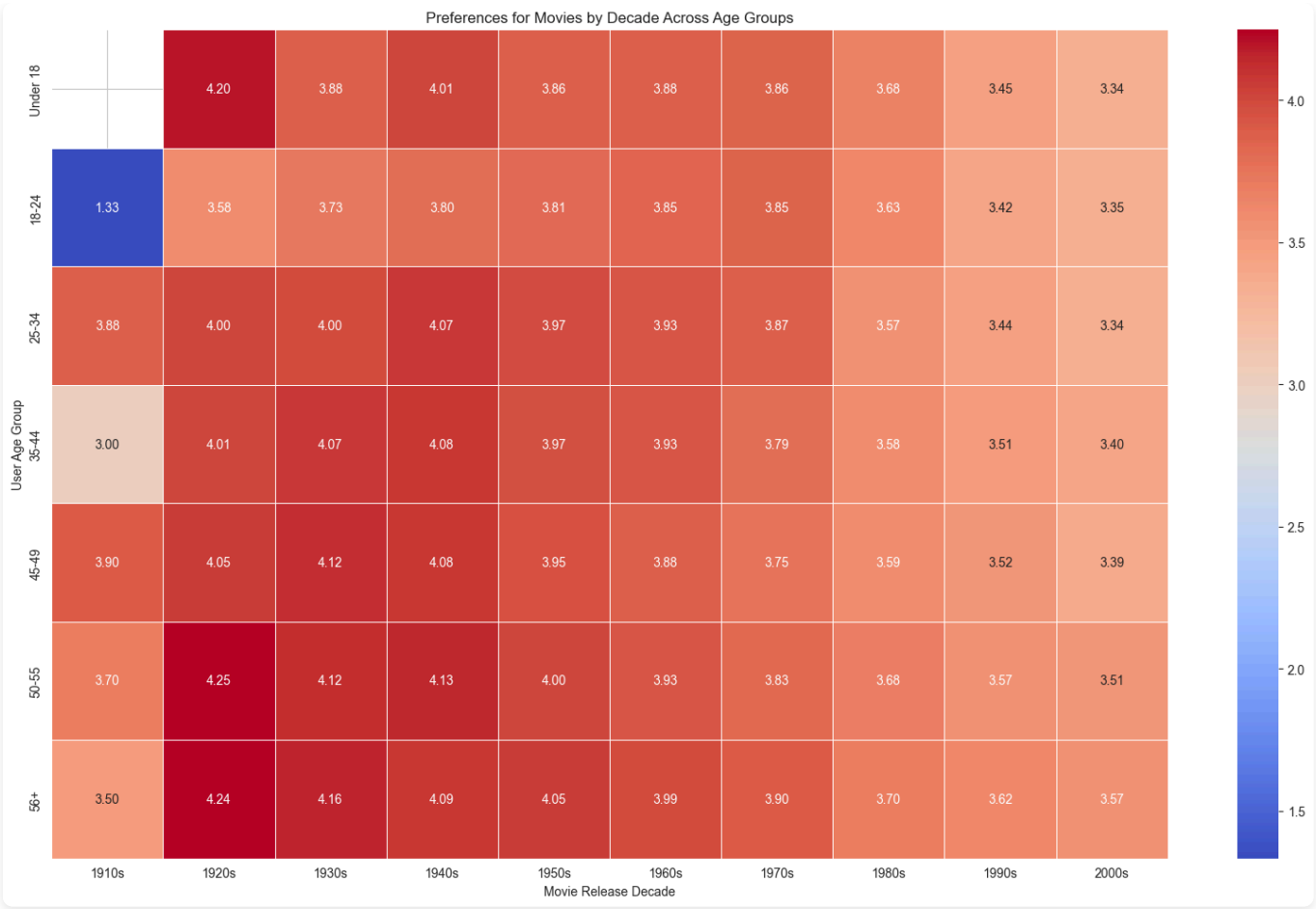
# User Characteristics and Movie Preferences



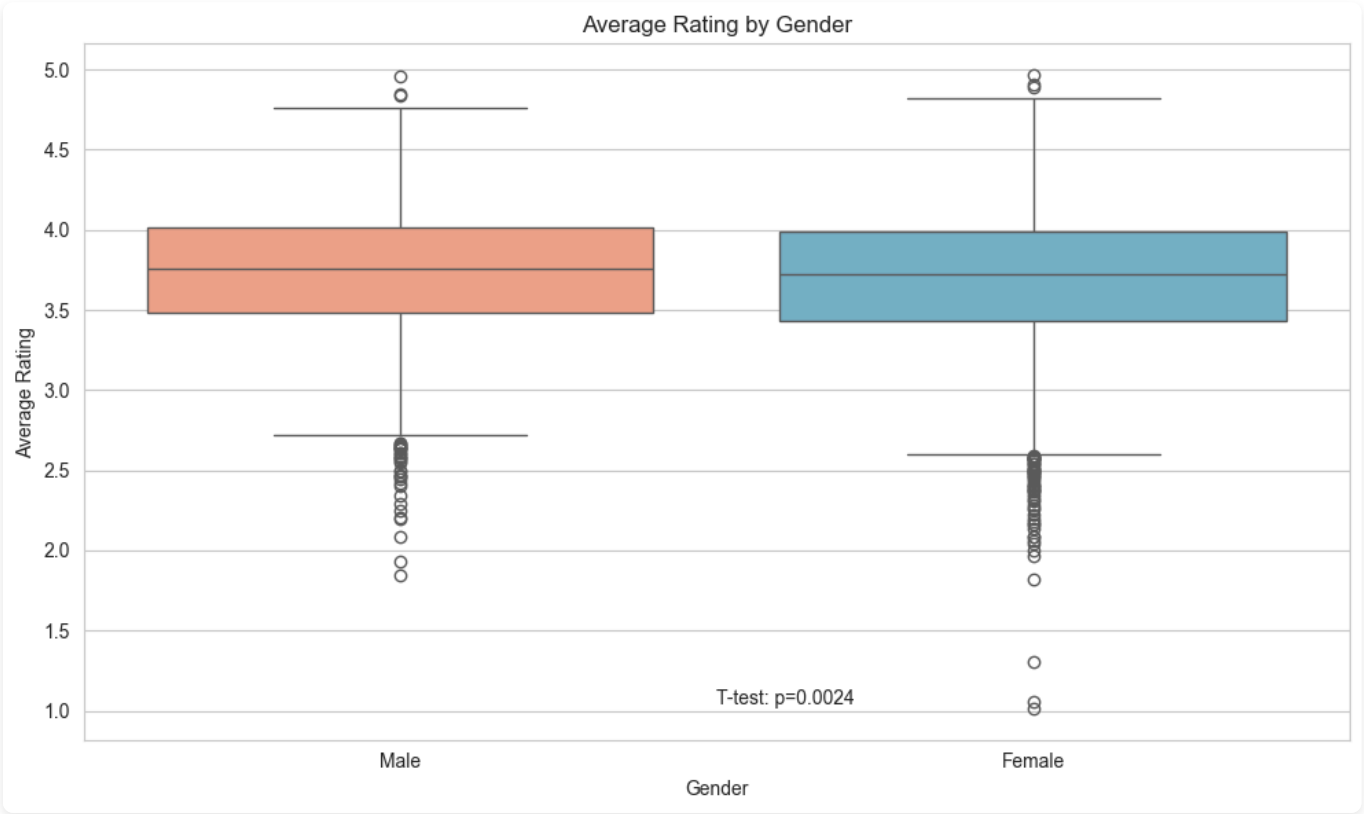
Movie Genre Preferences by Gender



Movie Genre Preferences by Age Group



Preferences for Movies by Decade Across Age Groups



Average Rating by Gender

# Conclusions and Insights



Through in-depth analysis of the MovieLens dataset, we found significant correlations between user characteristics (gender, age, occupation) and movie preferences. Key findings include:

- Significant differences in movie genre preferences between genders
- Age influences how users rate movies from different decades
- Occupational background correlates with genre preferences

These findings provide valuable reference for designing movie recommendation systems and developing movie marketing strategies.