



Netflix Recommendation Proposal

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Outline

- Overview
- Business Problem
- Methods
- Results
- Conclusion
- Next Steps

Overview

Create recommendation system that will pull movies based on review. Include a survey to address cold start issue. Use data and intuition to suggest the best model.

Business Problem

- Someone accidentally deleted Netflix recommendation system, give suggestion to their customers about other shows and movies they would like. They have hired a Data science consultant to suggest the best recommendation method. Data being used is from the [MovieLens Latest Datasets](#). The data set is over 27 million entries long. For the sake of time and available computing power only 100,000 entries will be used.

Methods

- SVD
- KNN With Means
- KNN Basic
- KNN Baseline

Results

Methods	RMSE(AVG)	Fit Time(AVG)	Test Time (AVG)
SVD	.8876	.82 seconds	.23 seconds
KNN Basic	.9520	.11 seconds	1.68 seconds
KNN Baseline	.8724	.24 seconds	2.24 seconds
KNN with Means	.9007	.14 seconds	2.28 seconds

Conclusion

- All the models performed well with KNN Basic performing the best based on RSME(AVG). For this recommendation system SVD will be chosen to because of the low set time.

Next Steps

- Test the models on the full data set
- Reduce the interval of stars from .5 to 1 to if there will be an decrease test time
- See if we can use this code to expand in to other area, ie products, music, ect.

Thank You

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