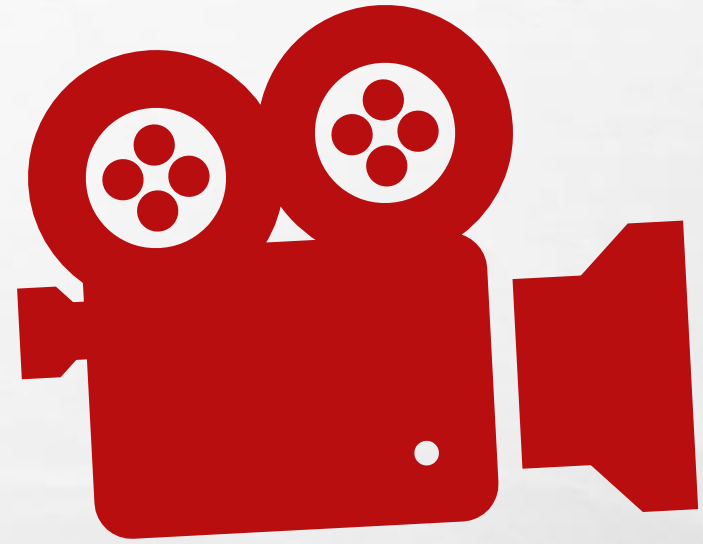


**BINGE.
RECOMMEND.
REPEAT.**



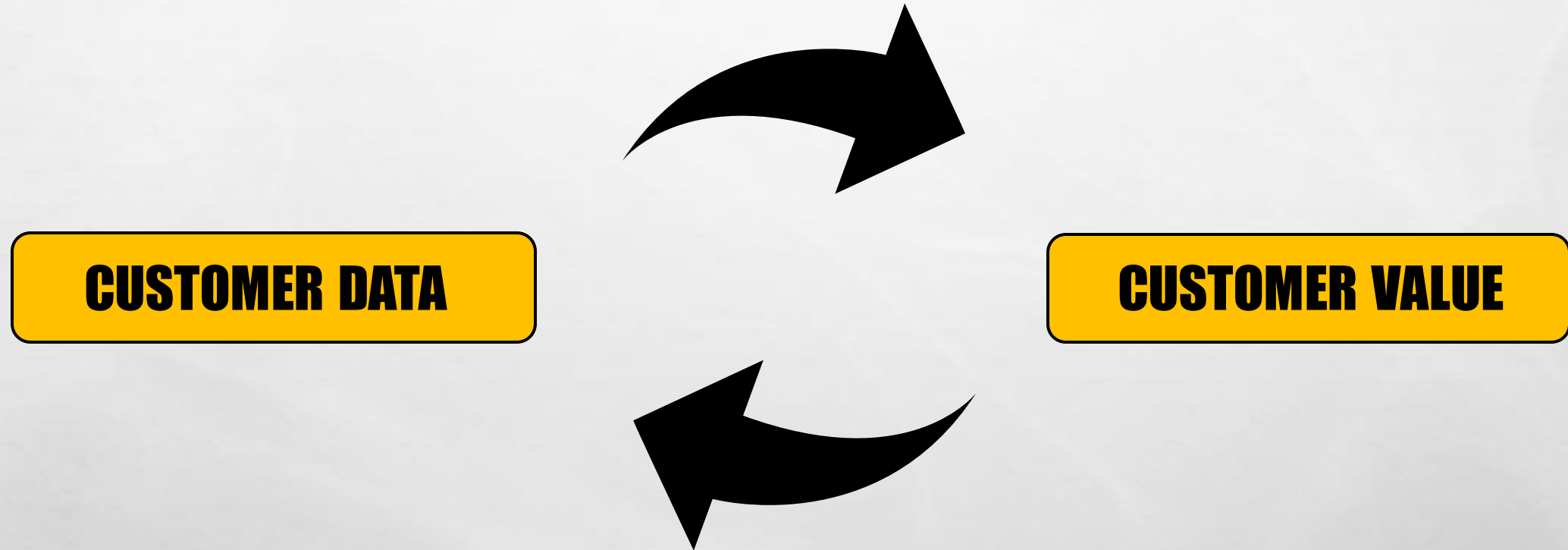
CAST & CREW



**JAROD CARROLL
SAM THURMAN
HAMZA MASOOD
MIHIR BHAGAT**

PROJECT GOAL

INCREASE VIEWING TIME VIA RECOMMENDATIONS



“THE ALGORITHM KNOWS BETTER THAN THE CUSTOMER AND THE COMPANY”

BACKSTAGE ACCESS: OUR PROCESS



DATA: MOVIELENS (10,000 MOVIES)

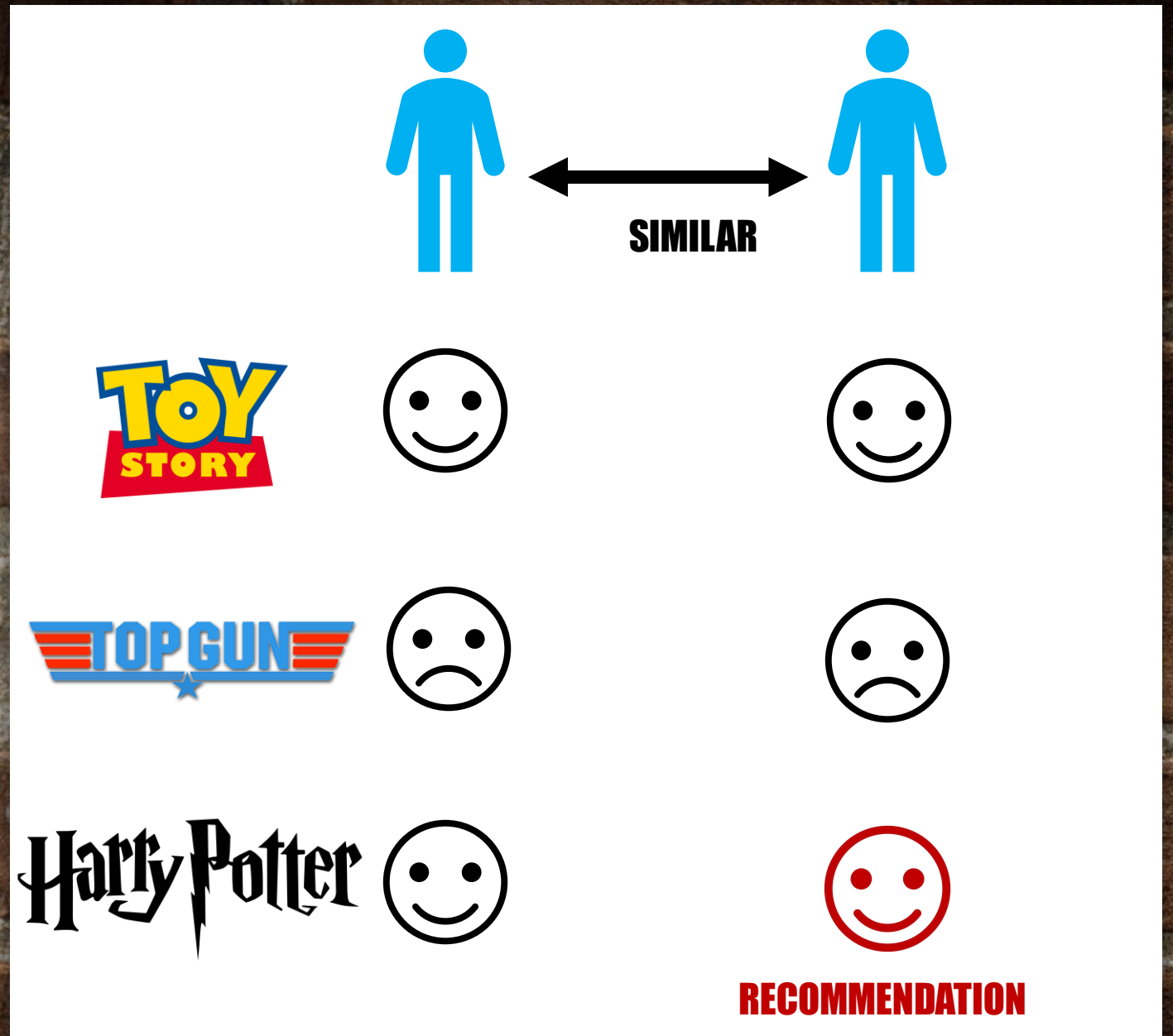


PRE-PROCESS: ENCODED GENRES & TAGS, VECTORIZED RATINGS



MODEL DESIGN: COLLABORATIVE FILTERING VIA ALTERNATING LEAST SQUARES

COLLABORATIVE FILTERING

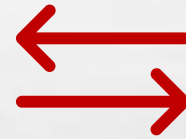


ALTERNATING LEAST SQUARES MODEL

RATINGS MATRIX

=

USER MATRIX



MOVIE MATRIX

OPTIMIZING FOR RMSE



0.62

MAE = 0.44

OUR PREDICTIONS ARE ~ HALF A STAR OFF



FLASK APPLICATION



RECOMMENDATIONS

BEYOND GENRE

IMDB

- DIRECTOR
- ACTORS
- LENGTH

TIME SERIES

**HOW DID RATINGS
INFLUENCE FUTURE
VIEWING?**

USER INFO

WHEN DO YOU WATCH?

**WHAT DEVICE DO YOU WATCH
ON?**

HOW LONG DO YOU WATCH?

**WHAT DO YOUR FRIENDS
WATCH?**

ADAPT PRODUCT

BUY/CREATE CONTENT

BUNDLE SERVICES

PERSONALIZE UI/UX