DATA ENGINEERING UNIT
OF METIS DSML -
MATT RYAN
2021

LEAGUE OF LEGENDS RECOMMENDER APP

LEAGUE OF LEGENDS

AGENDA

1 OVERVIEW

2 DATA & PIPELINE

3 MODELLING

4 ANALYSIS

LEAGUE OF LEGENDS

OVERVIEW

THE GAME

- MOBA
- 157 different champions, variety of playstyles

WEALTH OF DATA

- 11 million daily active players
- Ease of access through Riot's API

EXISTING STAT-TRACKING APPS

- Widely-used existing apps like op.gg and u.gg
- Many great for stat-presentation, not analysis

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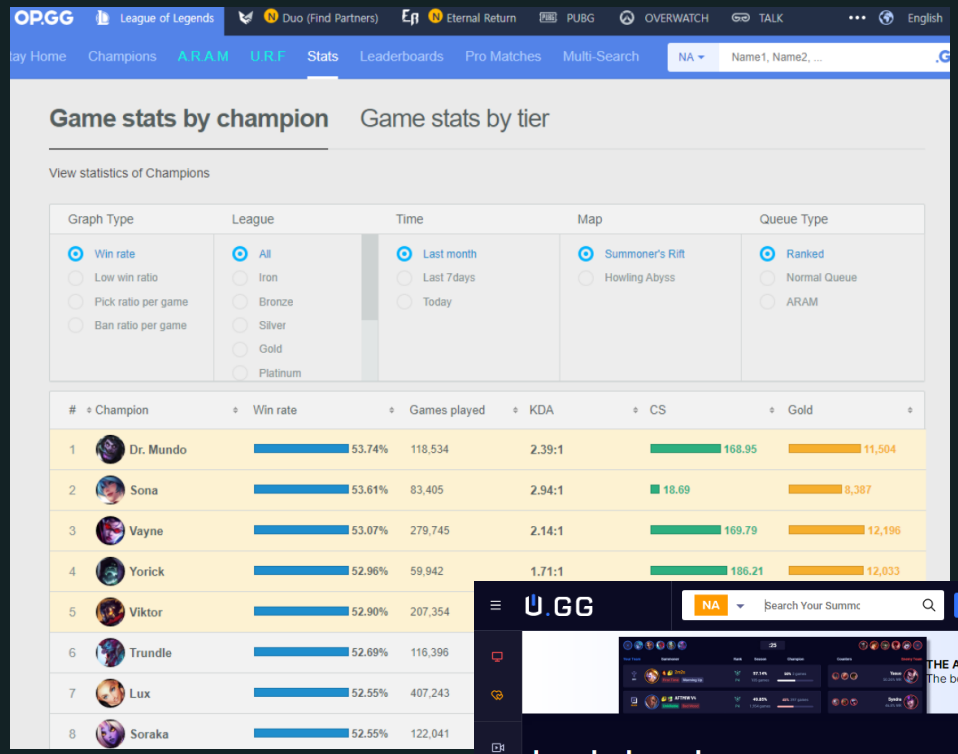

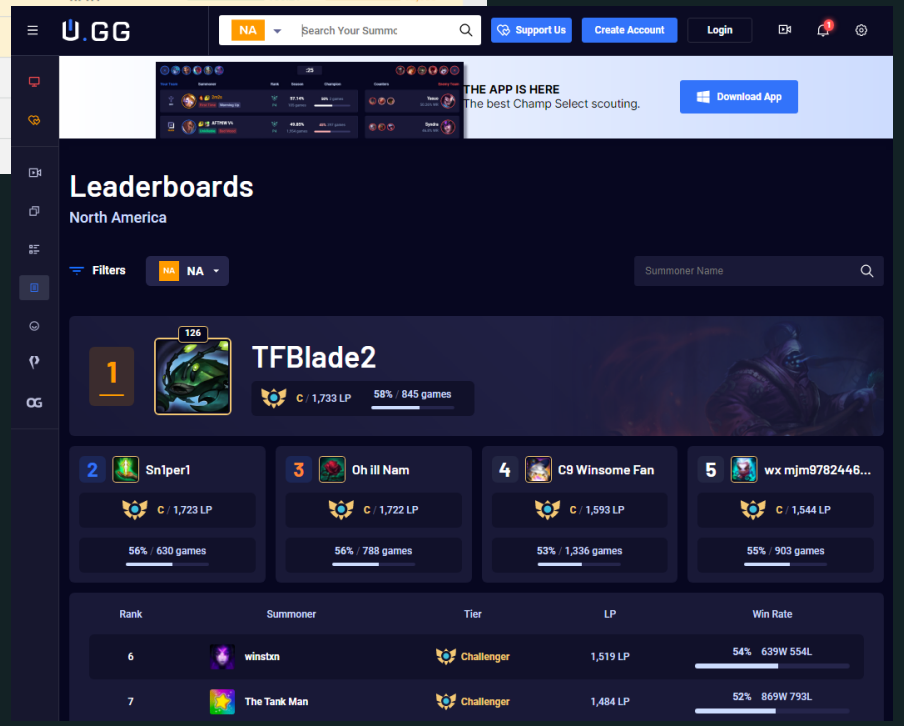

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CAN WE USE ML METHODS ON THIS DATA?

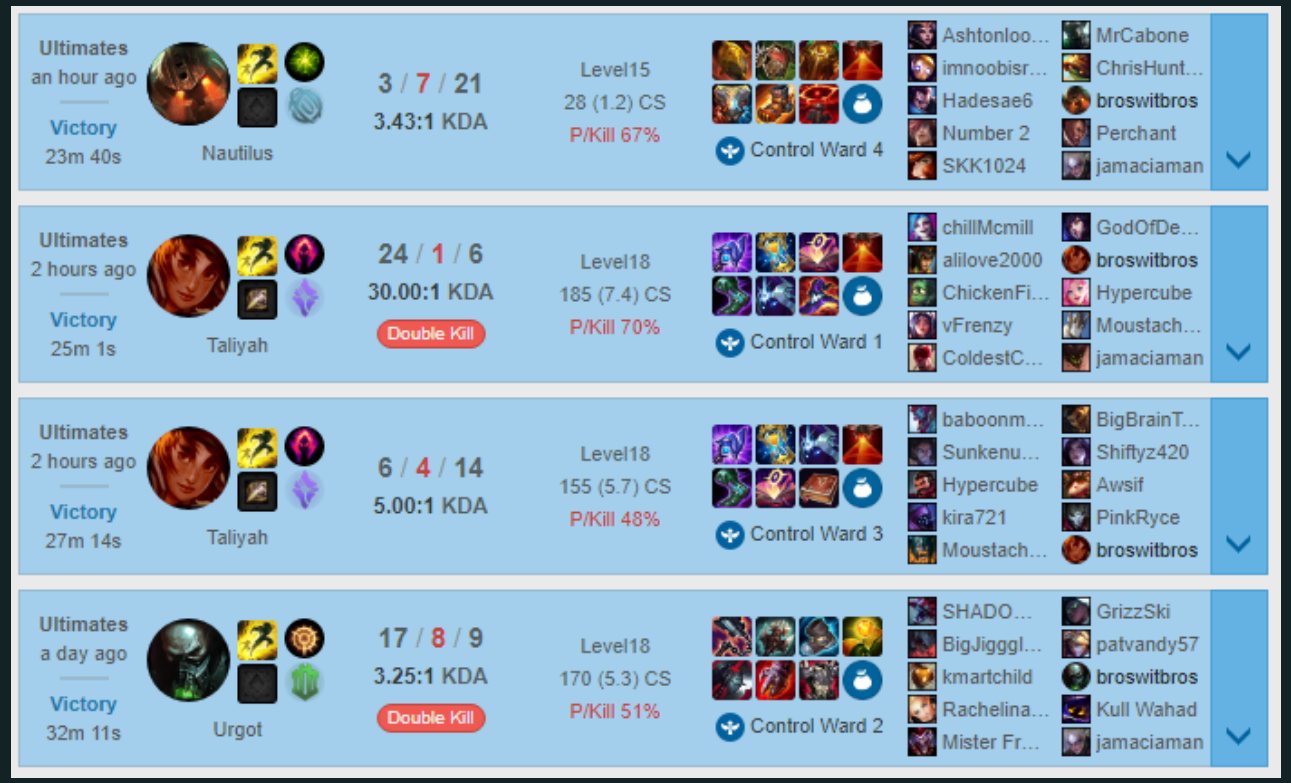
DATA AND PIPELINE

LEAGUE OF LEGENDS

OUR DATA

~55,000 players from top 4 ranked divisions

50 most recent games for each player

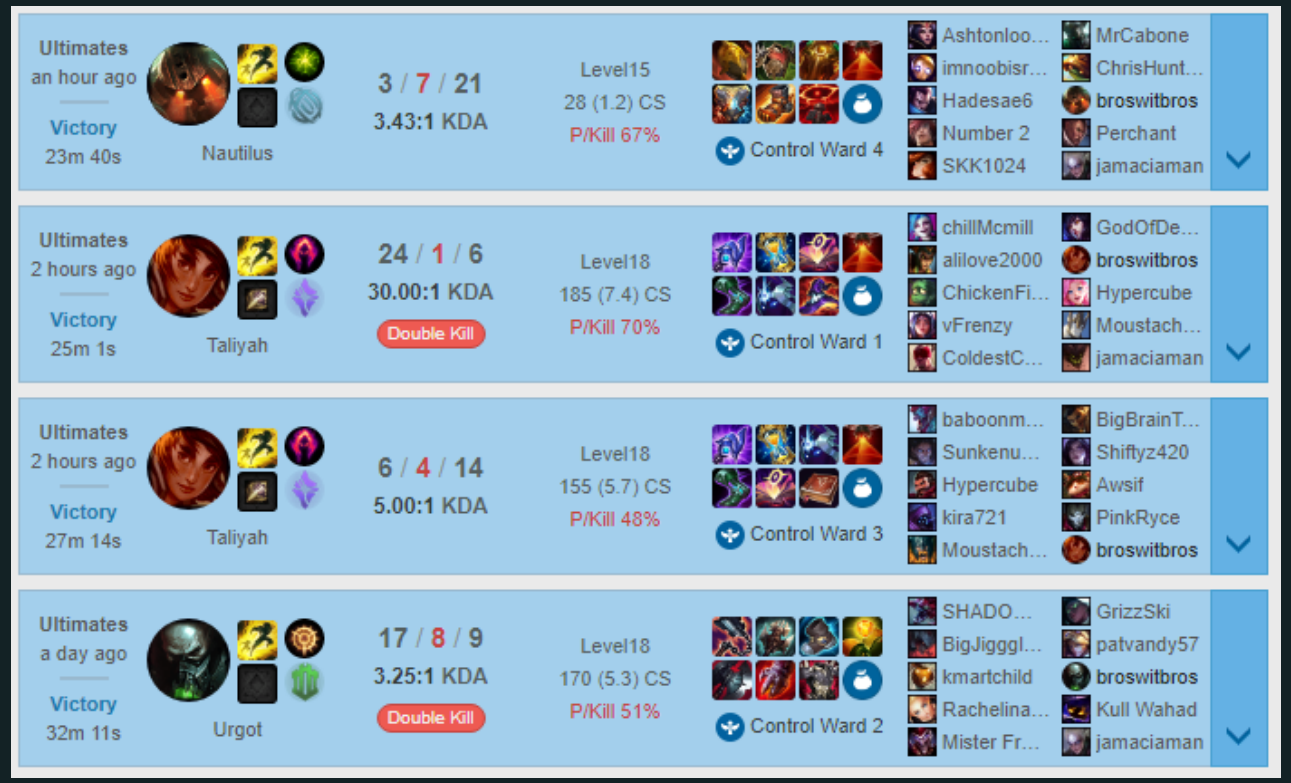


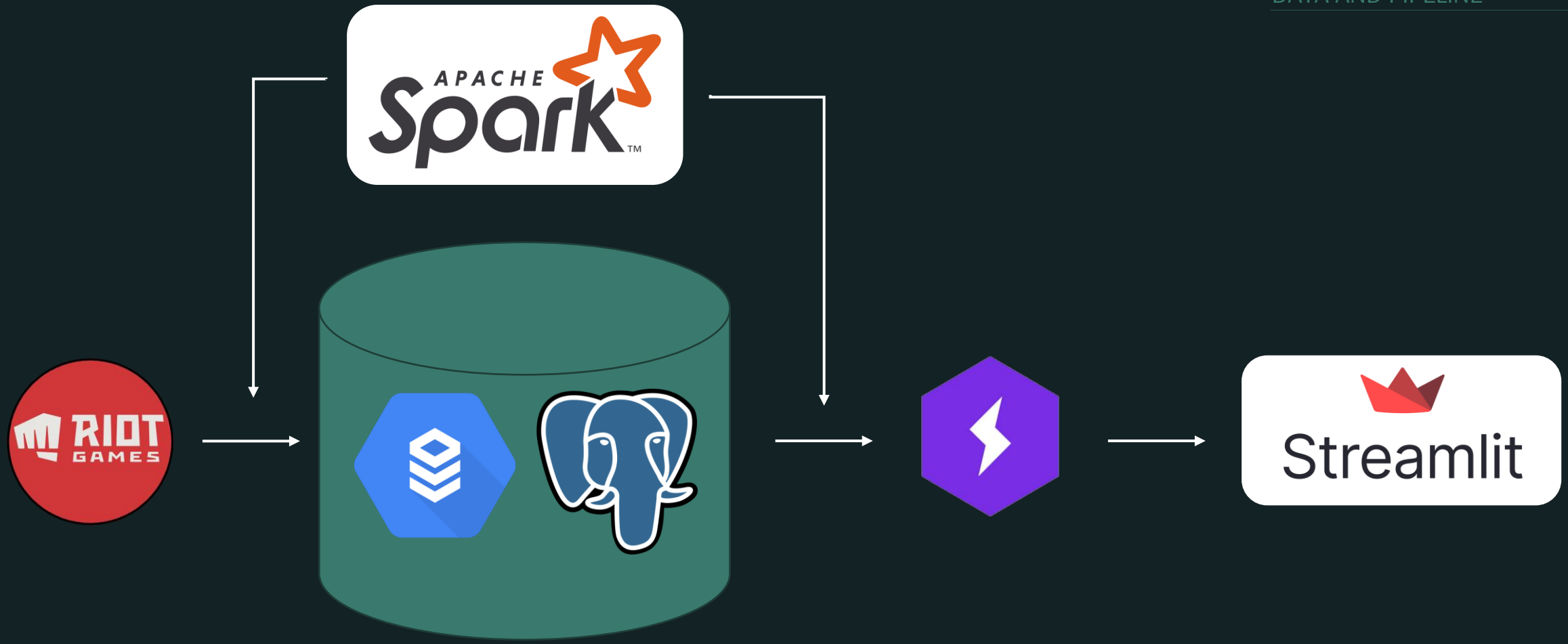
OUR DATA

~55,000 players from top 4 ranked divisions

50 most recent games for each player

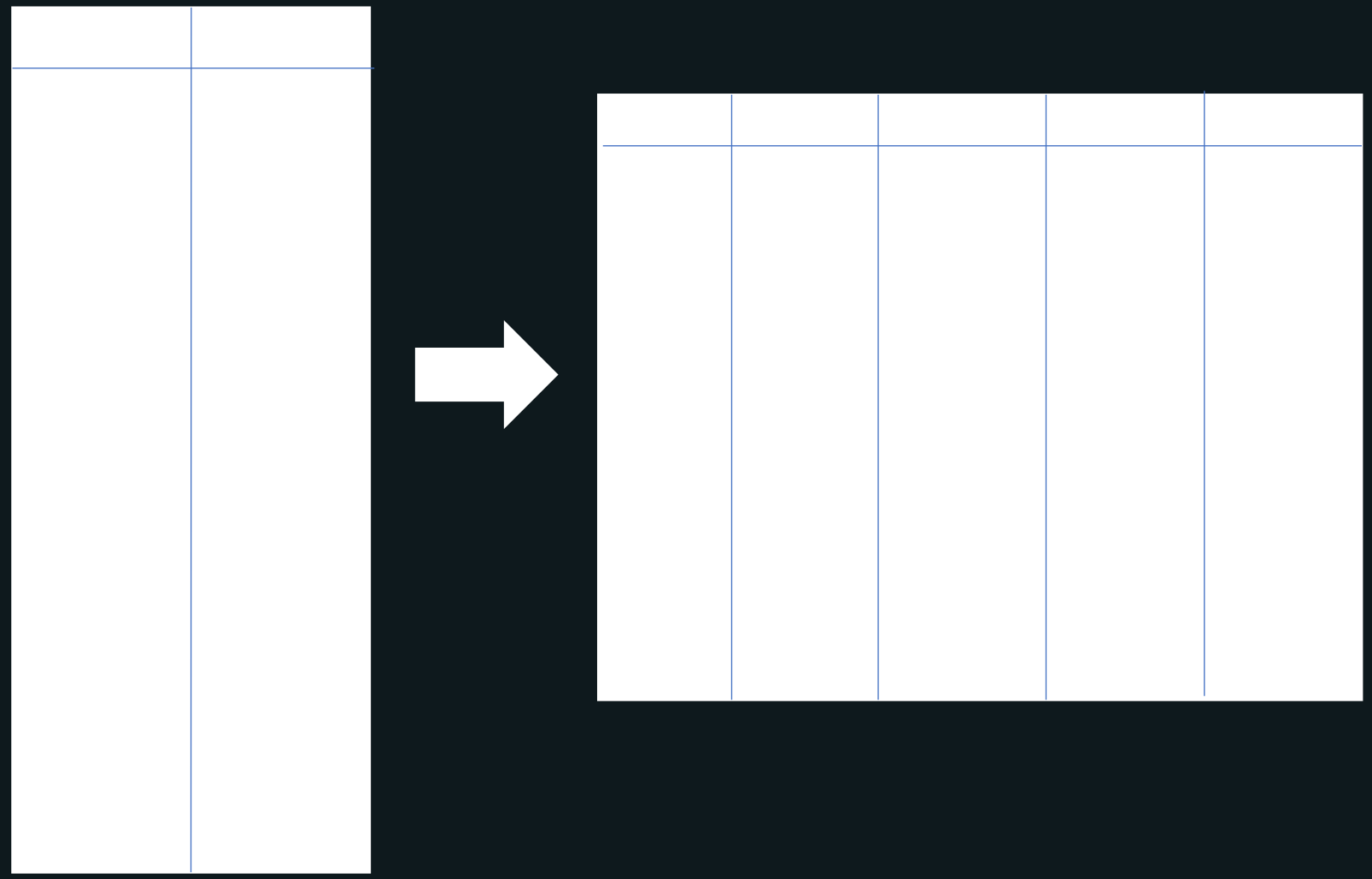
2,750,000




APACHE
Spark
RIOT
GAMES
Streamlit

MODELLING

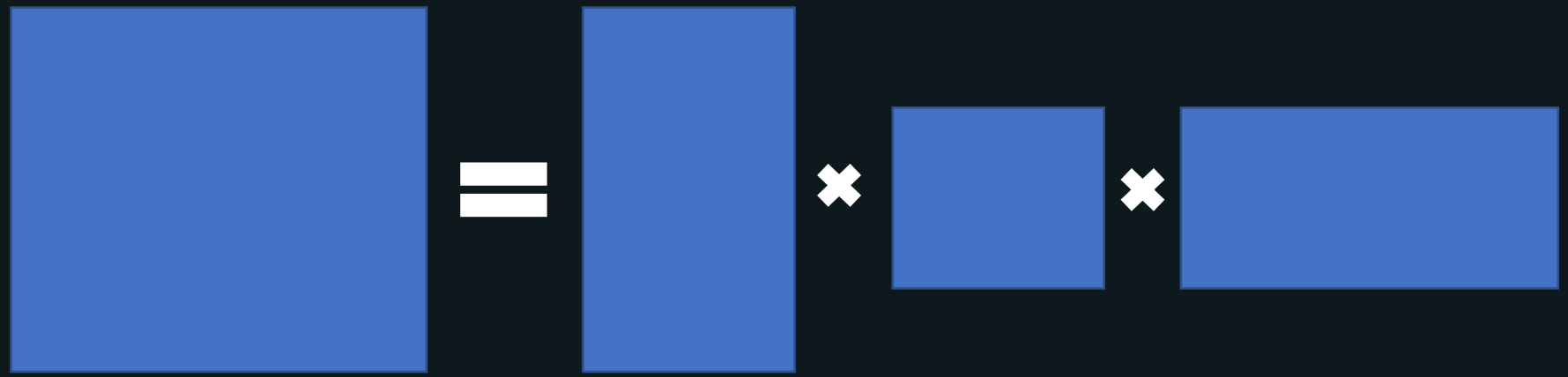
DATA VECTORIZATION



MODELING

- Started with basic SVD recommender

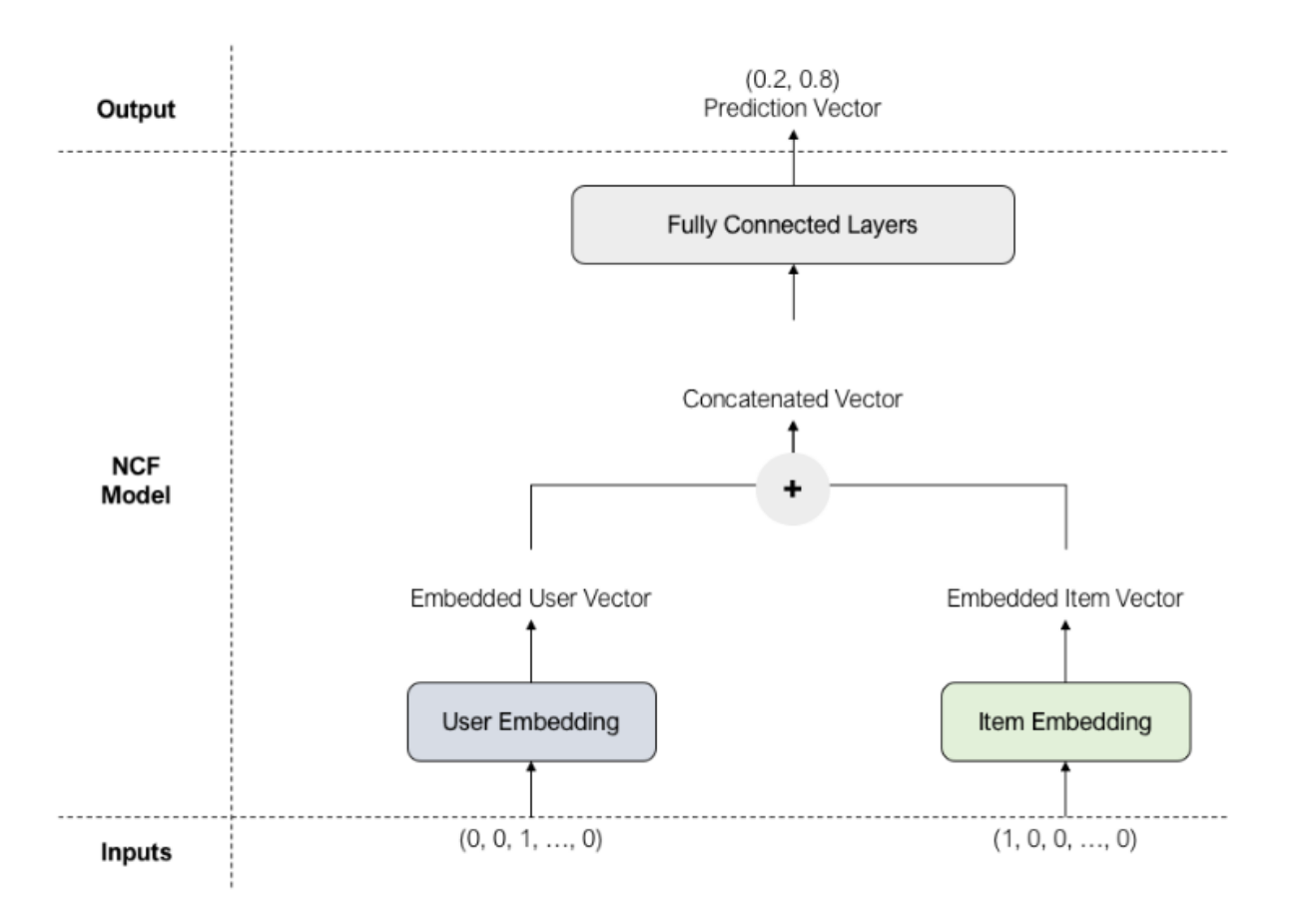
DIMENSIONALITY REDUCTION



MODELING

- Started with basic SVD recommender

USING DEEP-LEARNING



MODELING

- Started with basic SVD recommender
- Developed NCF model

ANALYSIS

TAKEAWAYS

- Establish scalable pipeline
- Development of webbapp begun

LOOKING FORWARD

- Rate-limiting with current API key
- Train NCF model on large-scale data
- Finalize development of Streamlit application

THANK YOU!

CONTACTS

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