



THE NEXT API FOR MOVIE RECOMMENDING



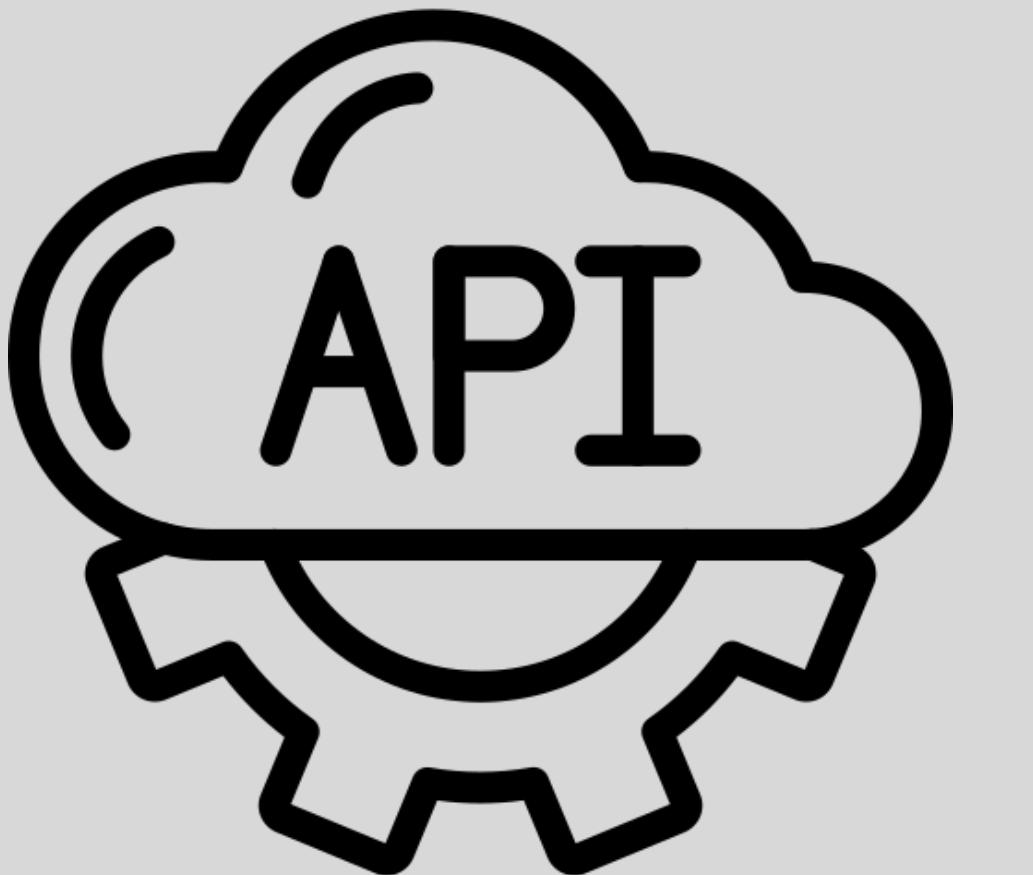
BY A GROUP OF DATA SCIENTIST AND
ENGINEERS



OUR PRODUCT

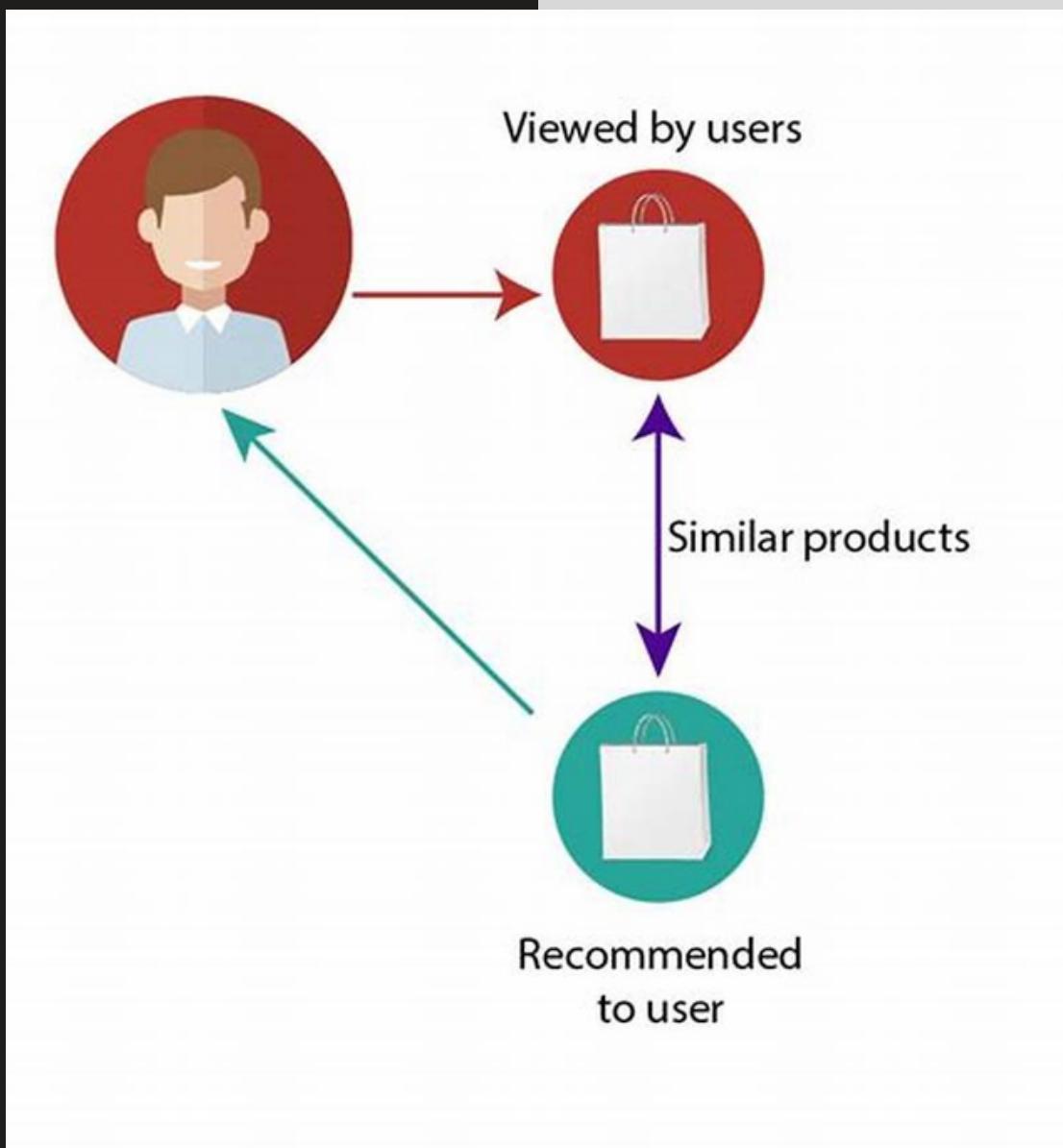
API with two recommender models:

- Allows for single user/movie recommendation
- Allows for bulk user/movie recommendations

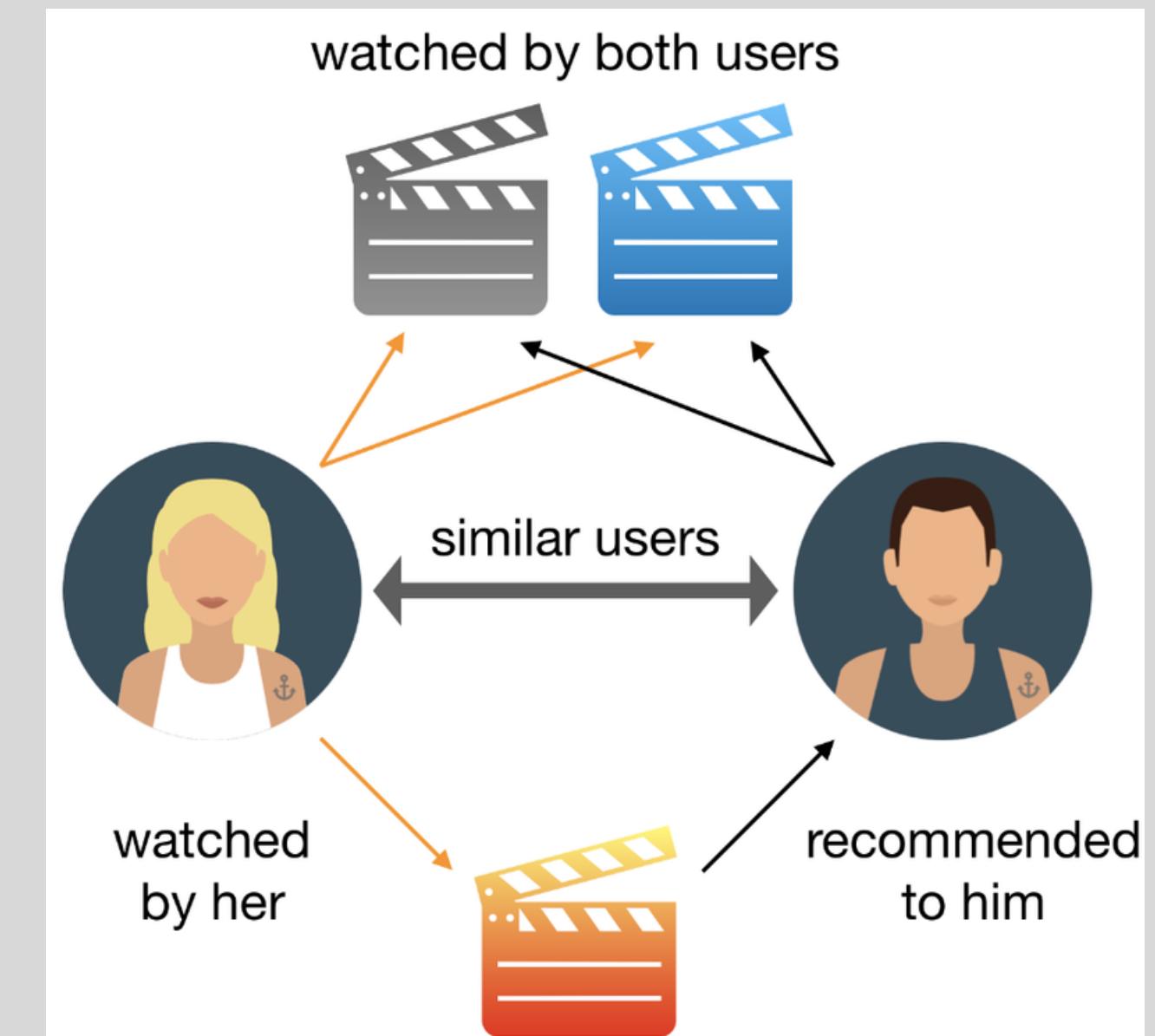


MODELS

Product-Based (SVD)



User-Based (KNN)



MLFLOW

Azure AI | Machine Learning Studio

Universitat de Barcelona / Azure_ML_workspace / Jobs

Jobs

All experiments All jobs All scheduled

Refresh Archive experiment View options

Search

Experiment

KNN-User-Based-Recommendation-Experiment

SVD-Product-Based-Recommendation-Experiment

Latest job coral_potato_72l95yjs

coral_potato_72l95yjs

sharp_ocean_qp9hhmyy

Nov

20/Page

All Azure AI

Universitat de Barcelona / Azure_ML_workspace / Jobs / KNN-User-Based-Recommendation-Experiment

KNN-User-Based-Recommendation-Experiment

+ Create job (preview) Refresh Cancel Delete View options Default

Display name (7 visualized) Created on Duration

Display name	Status	Created on	Duration
coral_potato_72l95yjs	Completed	Nov 15, 2023 12:13 AM	21s
jolly_apple_mc7n3p0b	Completed	Nov 15, 2023 12:05 AM	17s
tough_root_tx23x79n	Failed	Nov 15, 2023 12:05 AM	6s
frank_garlic_w1ngb0yn	Completed	Nov 14, 2023 11:49 PM	18s
blue_basin_k43p8999	Completed	Nov 14, 2023 11:42 PM	26s
amusing_table_4mq1bkmz	Completed	Nov 14, 2023 11:42 PM	26s
coral_pea_0g8qjpzn	Completed	Nov 14, 2023 11:42 PM	26s

coral_potato_72l95yjs

Overview Metrics Images Child jobs Outputs + logs

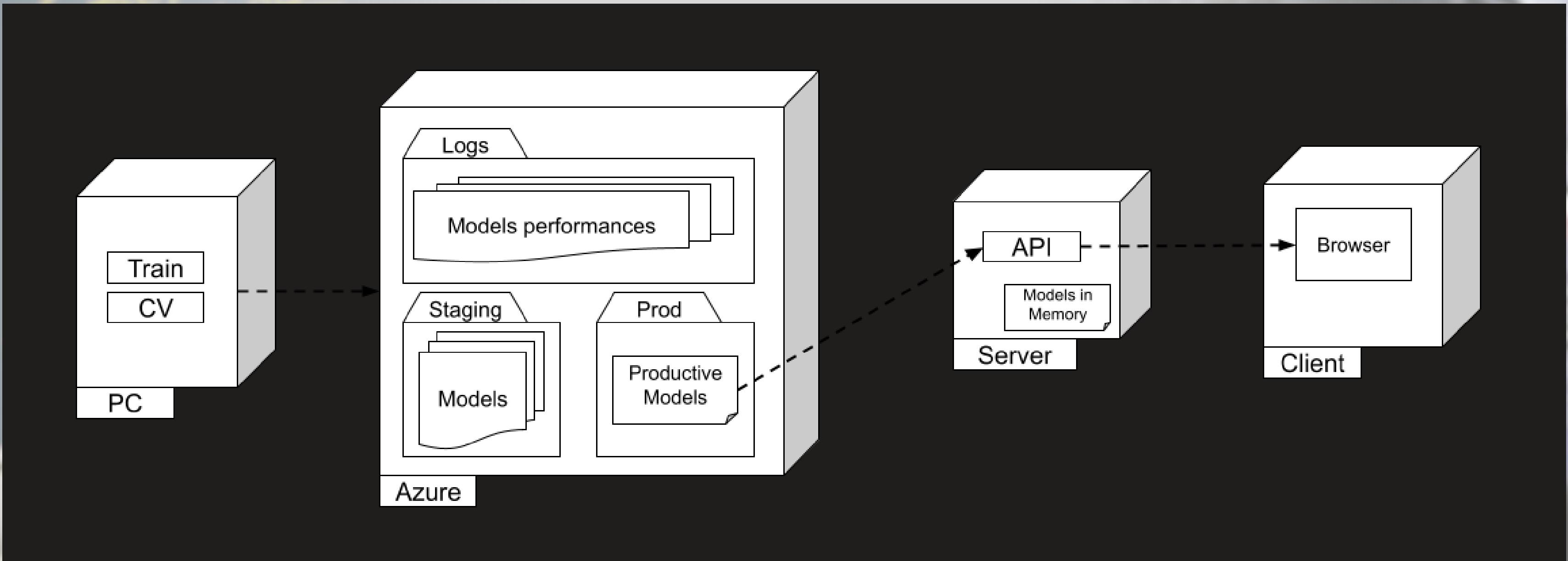
Refresh Cancel Create custom chart

Select metrics

test_rmse

0.9857683

DEPLOYMENT ARQUITECTURE



OUR TEAM

Scrum Master/Software Engineering

Manuel Hernández

Software Engineering/MLFlow

Alexandru Oarga

Dafni Tziakouri

MLOps

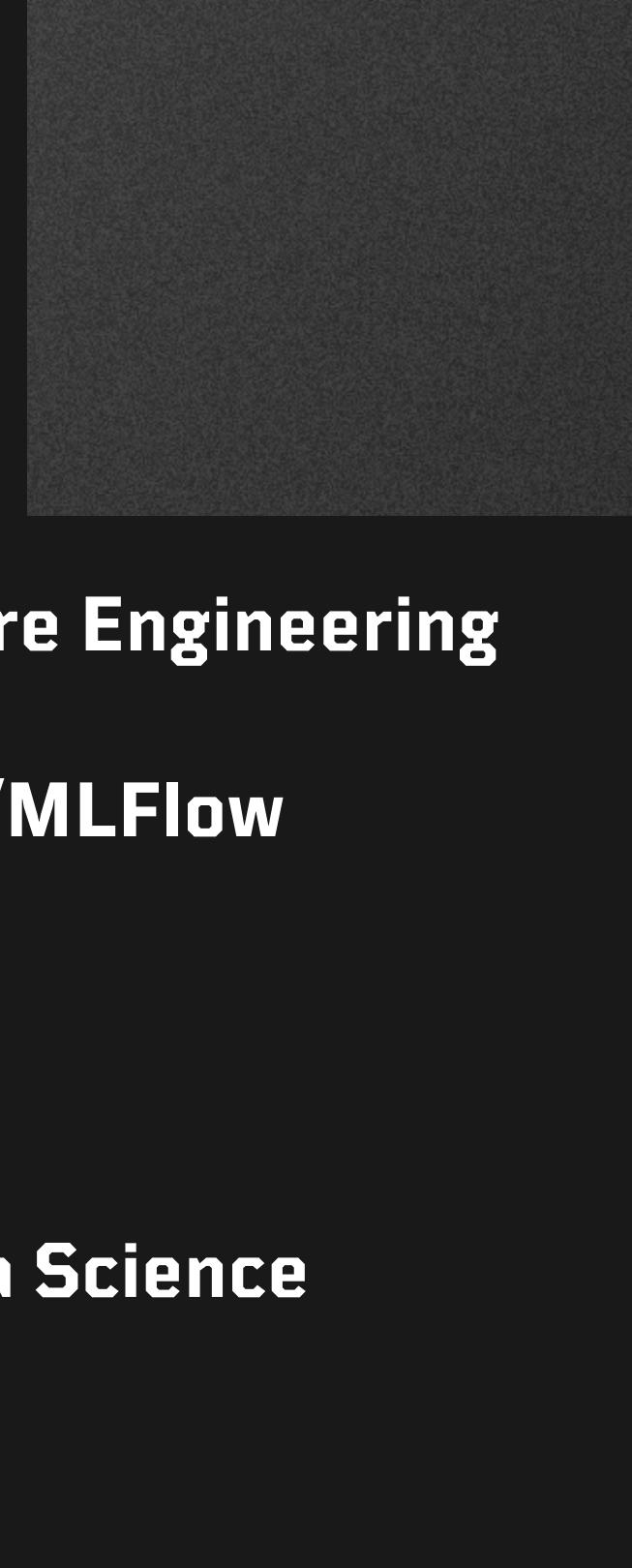
Victor Fayos

Data Engineering/Data Science

Adriana Álvaro

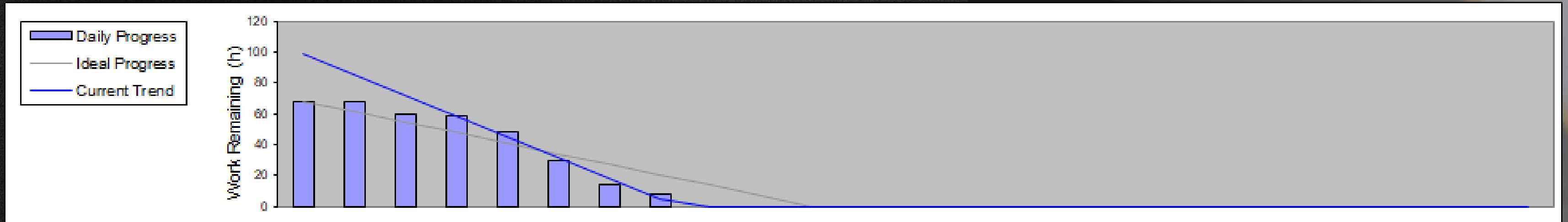
Madison Chester

Methodologies



DAILY WORK

Name	07/11/2023				08/11/2023				09/11/2023				10/11/2023				
	Attendance	Did work as expected	Will work on the project	Had issues with the work	Attendance	Did work as expected	Will work on the project	Had issues with the work	Attendance	Did work as expected	Will work on the project	Had issues with the work	Attendance	Did work as expected	Will work on the project	Had issues with the work	
Manuel A Hernandez Alonso	Yes	N/A	Yes	N/A	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Adriana Alvaro	Yes	Yes	No	N/A	Yes	N/A	No	N/A	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Victor Fayos	Yes	Yes	No	No	Yes	N/A	Yes	N/A	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Dafni	Yes	Yes	No	No	Yes	N/A	Yes	N/A	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Madison Chester	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Alexandru Oarga	Yes	N/A	Yes	N/A	No	N/A	N/A	N/A	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
	Comments				Comments				Comments				Comments				
					Madison had some troubles with time, will continue today.				Manuel had problems with time management, couldn't dedicate enough time. Adriana worked on the project even if it wasn't planned.								



Methodologies

PRODUCT PLANNING

01 Create a set of features for the product

02 Extract a set of user stories

03 Use planning poker to sort them

Product Backlog							Sort Product Backlog
Story ID	Story name	Status	Size	Sprint	Priority	Comments	
1	As a Company I want to access a content based model through an API	Done	5	1	6	AC: Have an API, Connect the API to a Model	
2	As a Data Scientist I want to train a model to have content based recommendation	Done	6	1	10	AC: Have a model PoC in a notebook, Have accuracy over 90% (Cosine Similiraty)	
3	As a MLOps I want to build a pipeline to train models given certain data	Done	7	1	6	AC: being able to input raw data and getting a trained model	
4	As a Data Scientist I want to be able to track model versions	Done	6	1	3	AC: MLFlow Tracking, having different performance measures for the models	

Methodologies

DEMO

