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CLUSTERING OF PROFESSIONAL COUNTER STRIKE PLAYERS

INTRODUCTION

What is CS:GO?

5 on 5 tactical first-person-shooter

Objective

Clustering players based on individual performance metrics

Why it Matters

Million dollar prize pools at stake

DATA PROCESSING

Joining Tables

Data of interest was spread across 2 different tables

Summarization

Present data by map played rather than by the entire match of 3 maps

Subsetting

Splitting the data by year to allow for a deeper dive

K-MEANS MODELING

Pro CS:GO Players Clustering

OPTIMIZING

Reduce Data Points
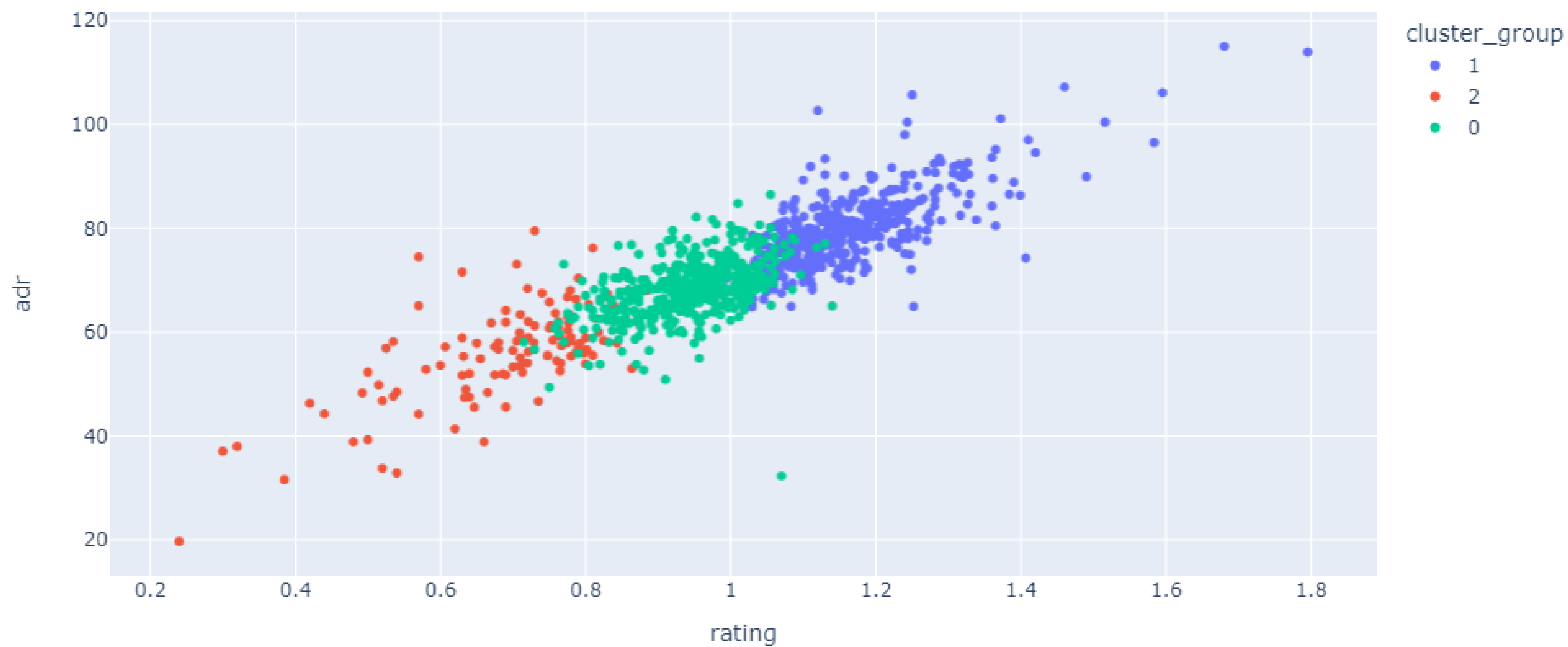
Limit number of data points model is exposed to

Determine No. Clusters

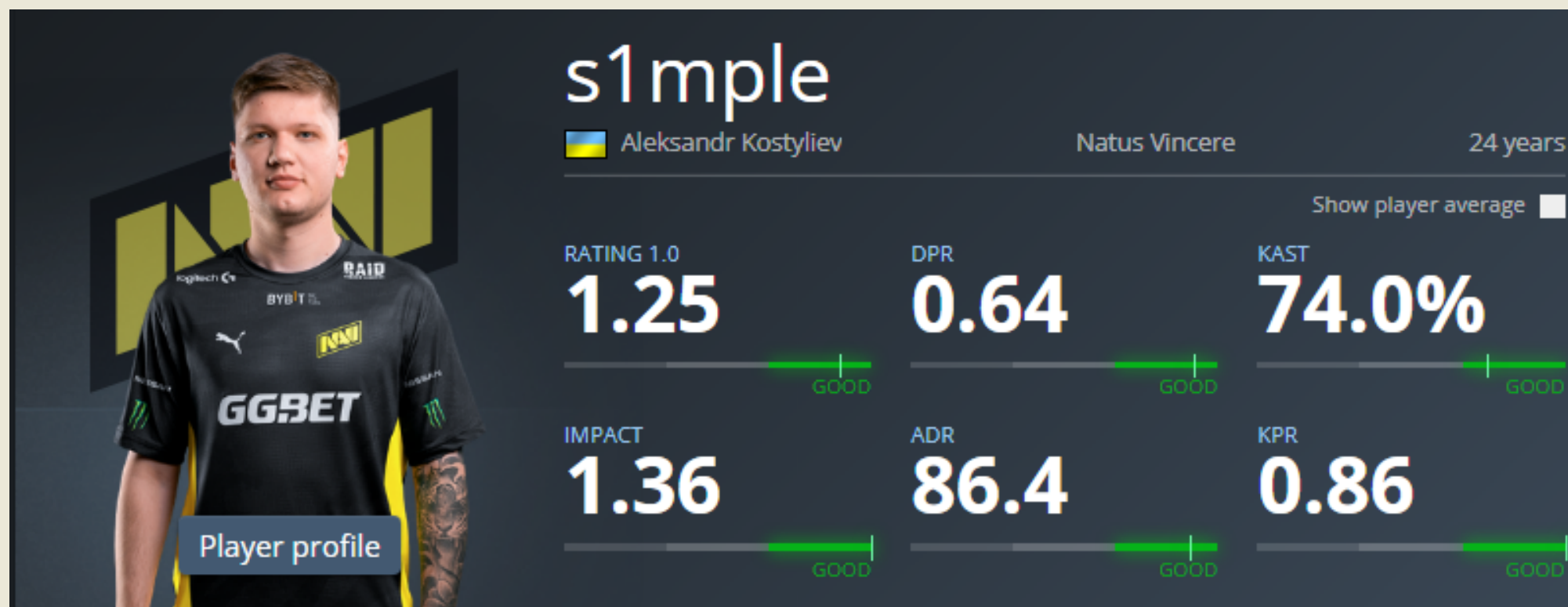Find the best number of clusters to use

MODEL OPTIMIZATION

n_clusters	inertia	silhouette
2	8111.13	0.251456
3	7178.59	0.182515
4	6531.58	0.164153
5	6051.49	0.146201
6	5699.76	0.142317

PLAYER 1

s1mple

🇺🇦 Aleksandr Kostyliev | Natus Vincere | 24 years

Show player average ☐

RATING 1.0	DPR	KAST
1.25	**0.64**	**74.0%**
GOOD	GOOD	GOOD

IMPACT	ADR	KPR
1.36	**86.4**	**0.86**
GOOD	GOOD	GOOD

Player profile

PLAYER 2

ZywOo

🇫🇷 Mathieu Herbaut | Vitality | 21 years

Show player average ☐

RATING 2.0	DPR	KAST
1.33	**0.62**	**74.9%**
GOOD	GOOD	GOOD

IMPACT	ADR	KPR
1.46	**88.8**	**0.85**
GOOD	GOOD	GOOD

Player profile

NEXT STEPS

01

5 Clusters

Re-explore using 5 clusters, dive deeper into the groups to see what differs

02

Deploy Web App

Use Flask (Dash) to implement an interactive online dashboard for the end user to use