

A photograph of a baseball pitcher in a white uniform with a red cap, captured in the middle of a pitching motion. The background shows a large crowd of spectators in a stadium. The entire image is overlaid with a semi-transparent orange filter. The title text is centered over the pitcher's torso.

Baseball Sabermetrics

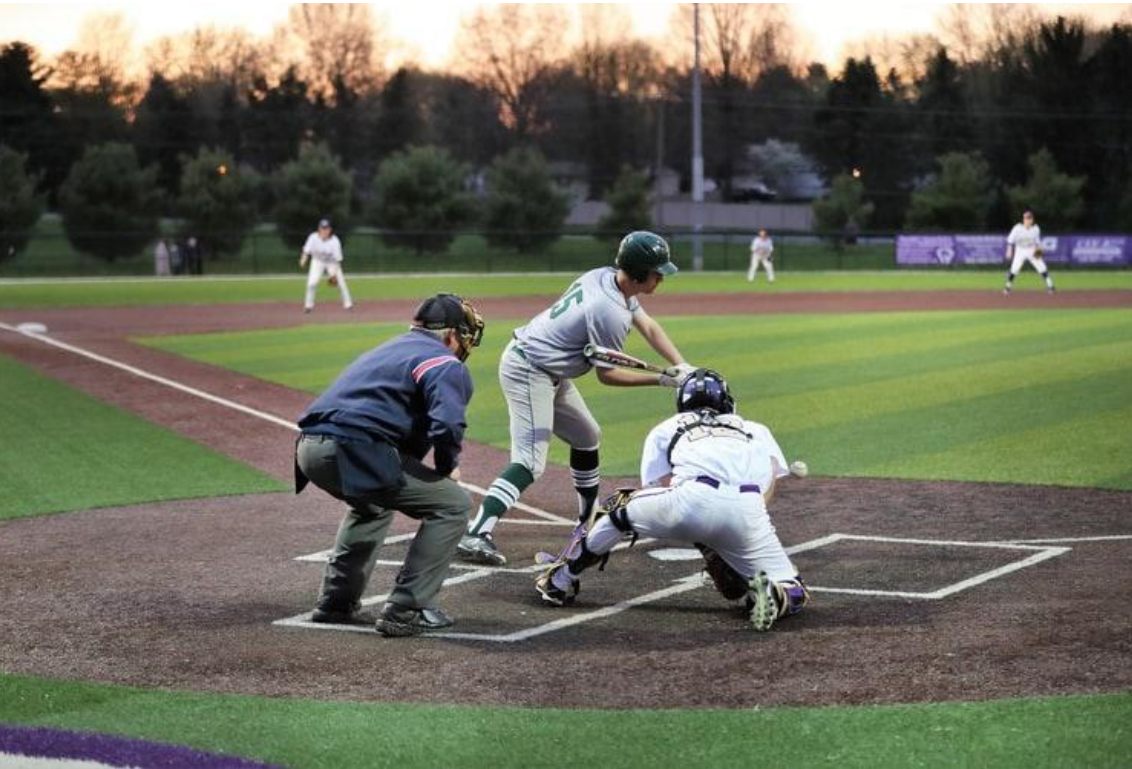
Anthony Zurke

Introduction

But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful. Nor again is there anyone. But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful. Nor again is there anyone.

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Problem Statement



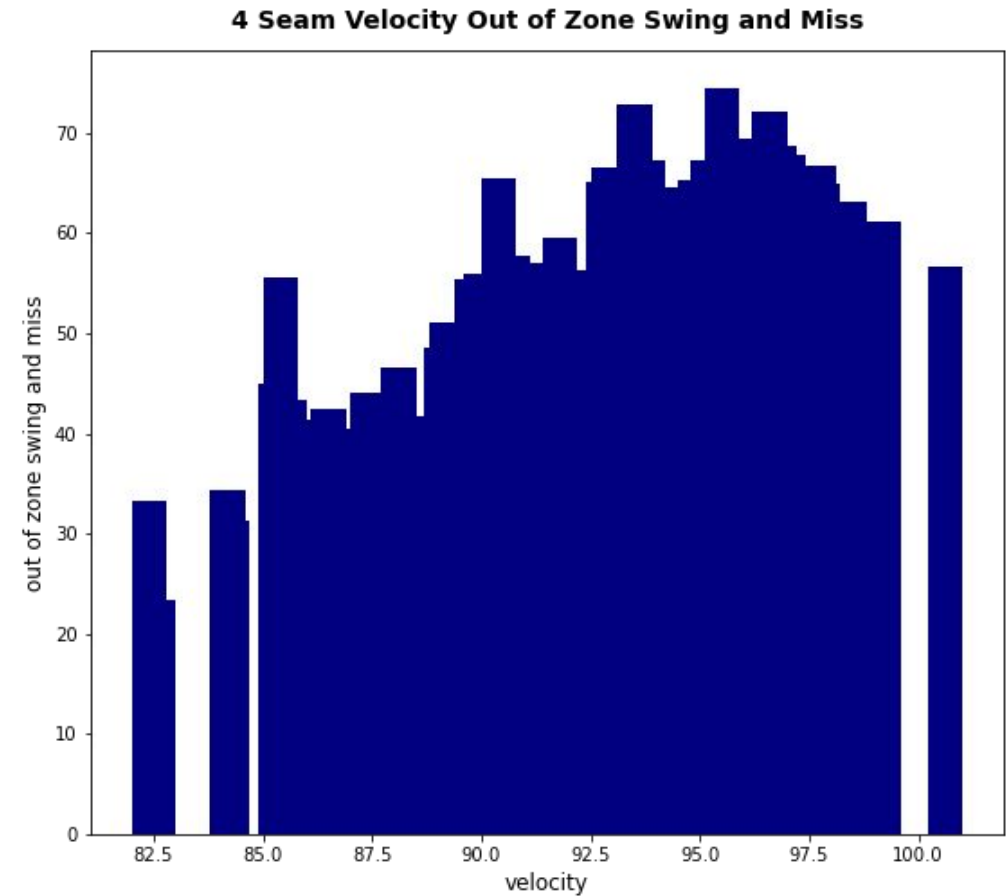
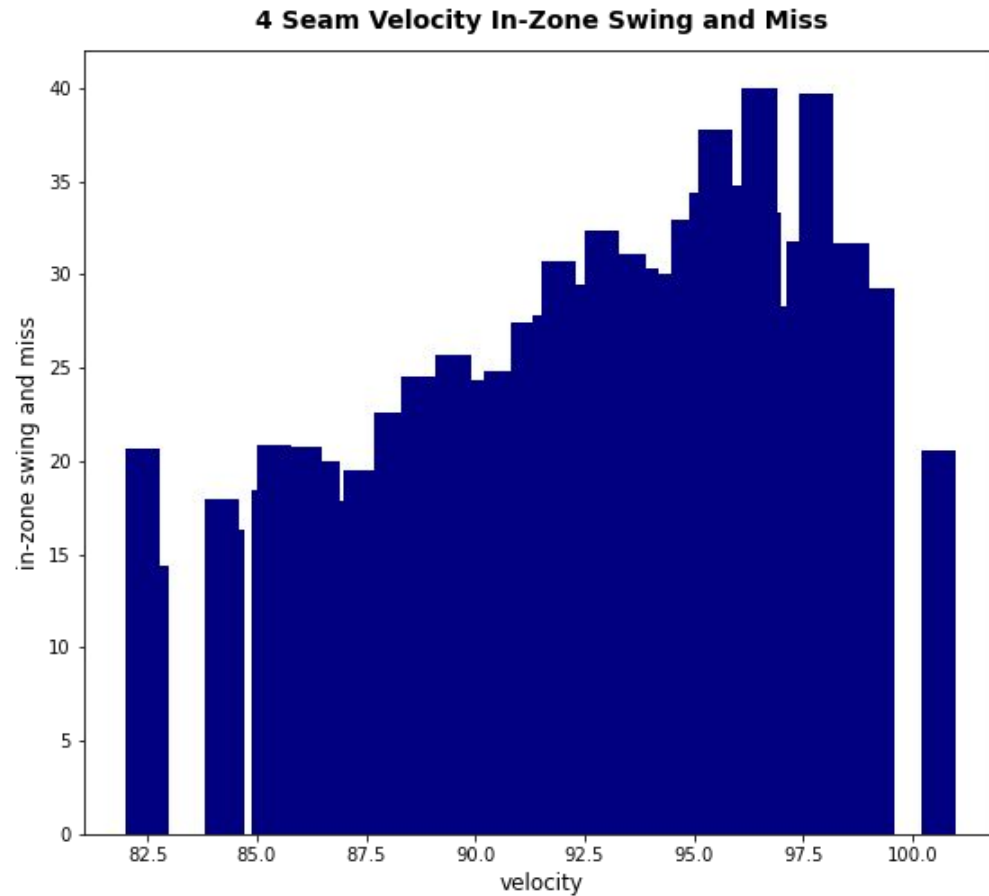
Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

Data Cleaning and EDA

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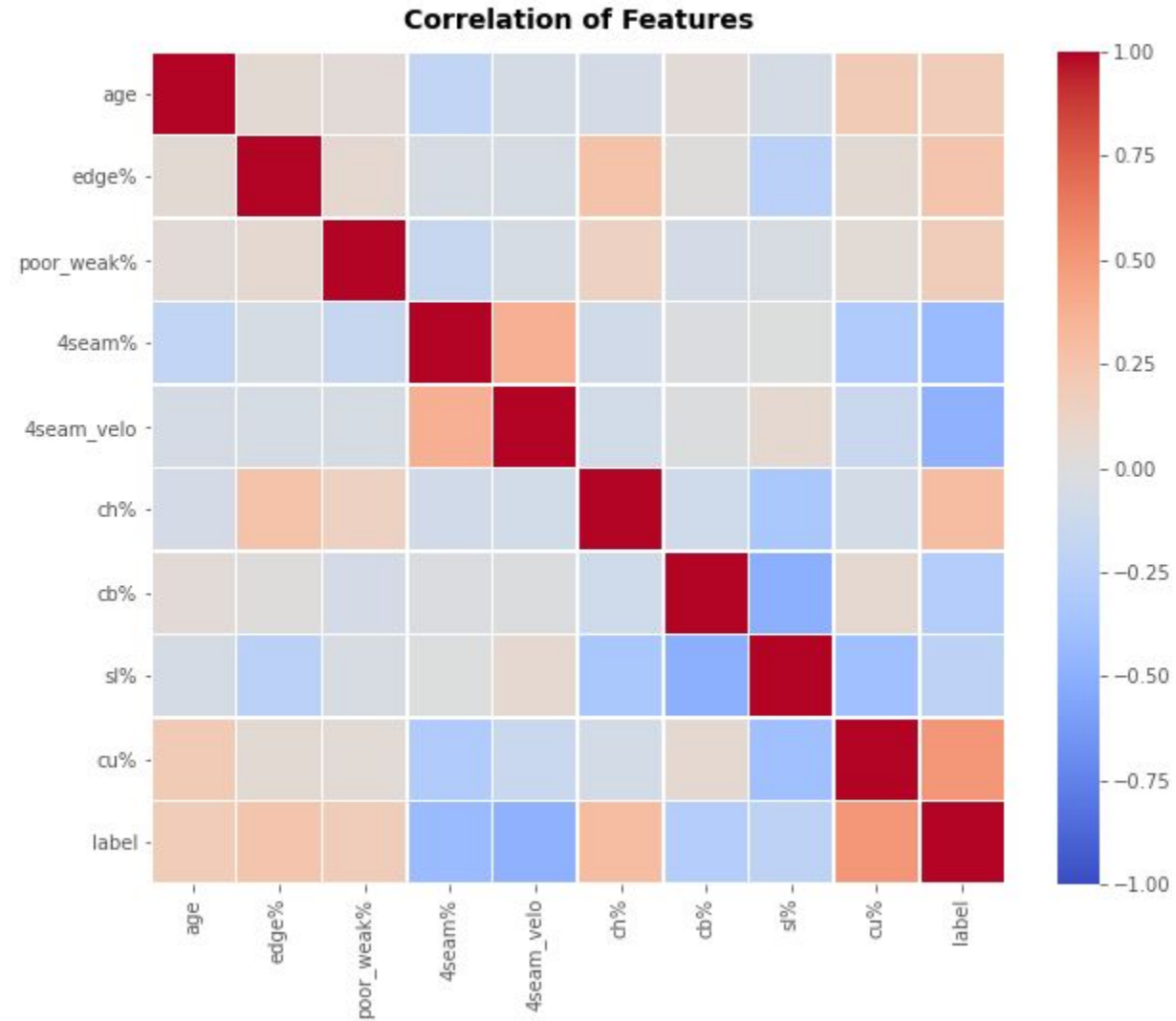
Fastball Velocity and Spin Rate



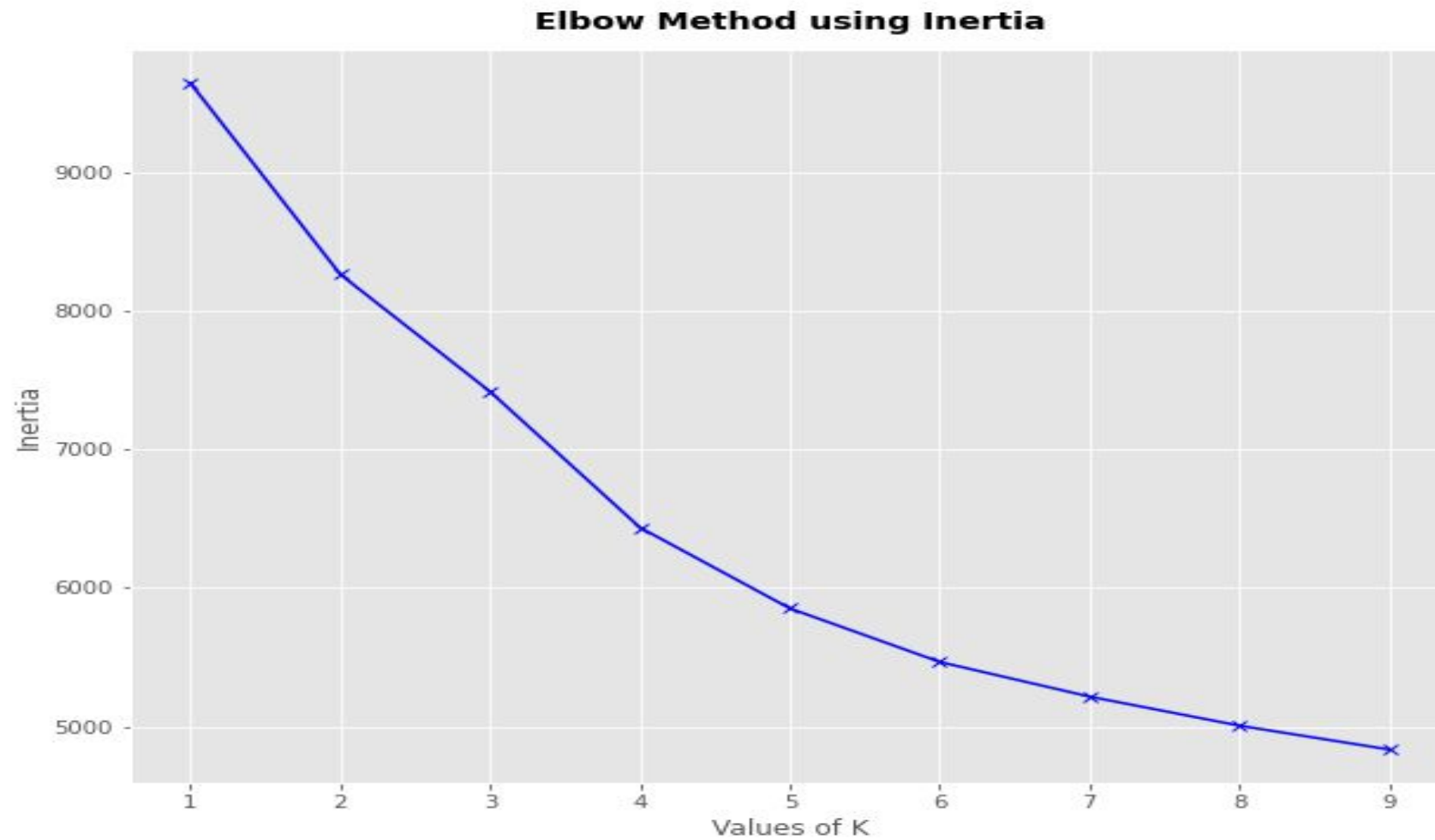
Slider Velocity and Spin Rate



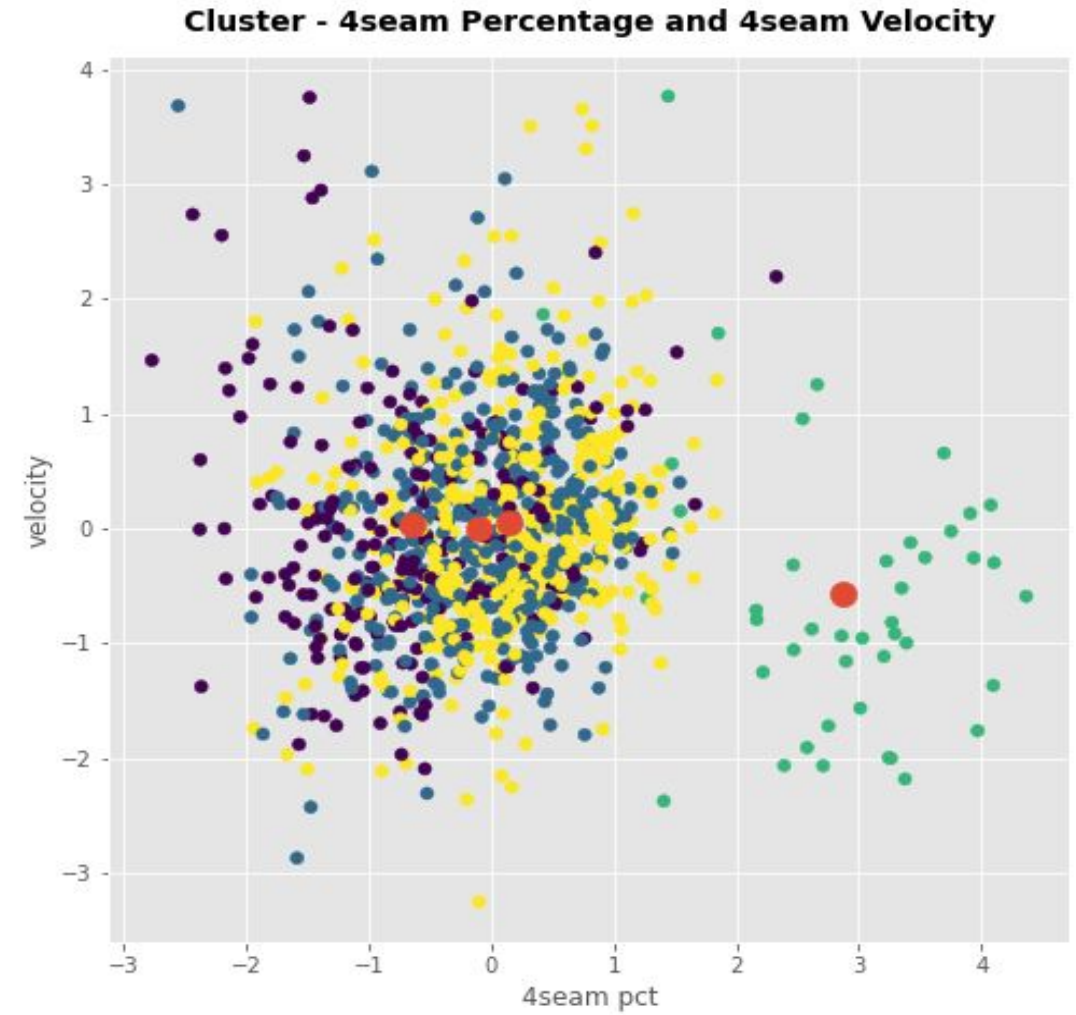
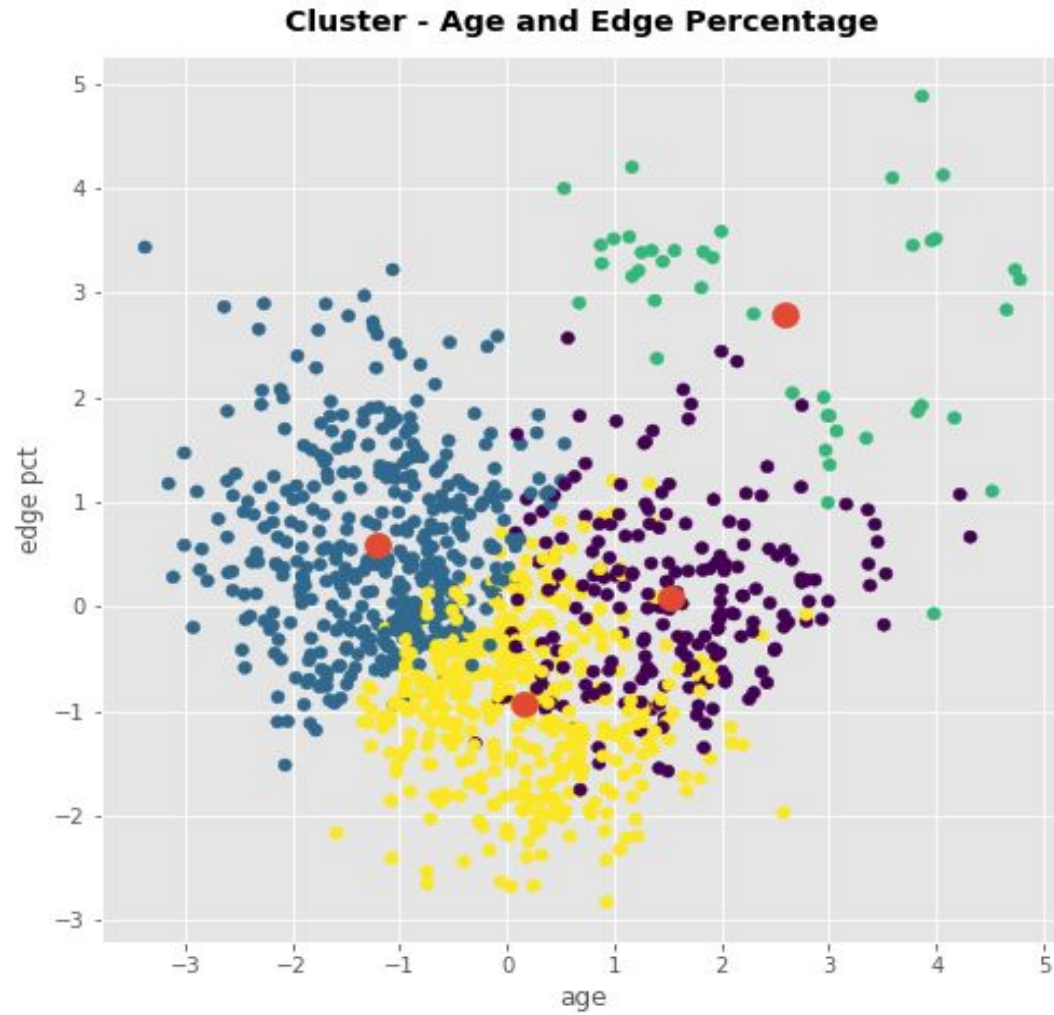
Heatmap of Features



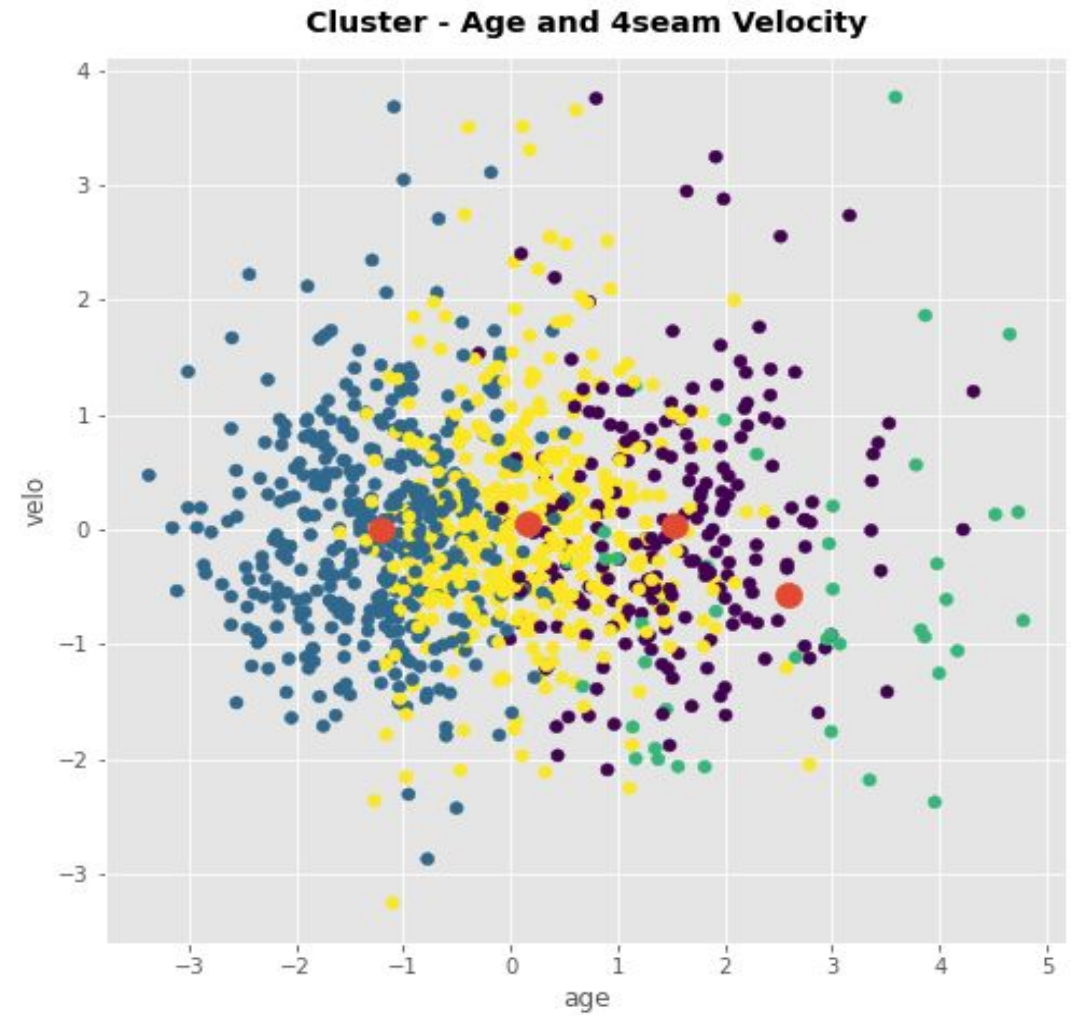
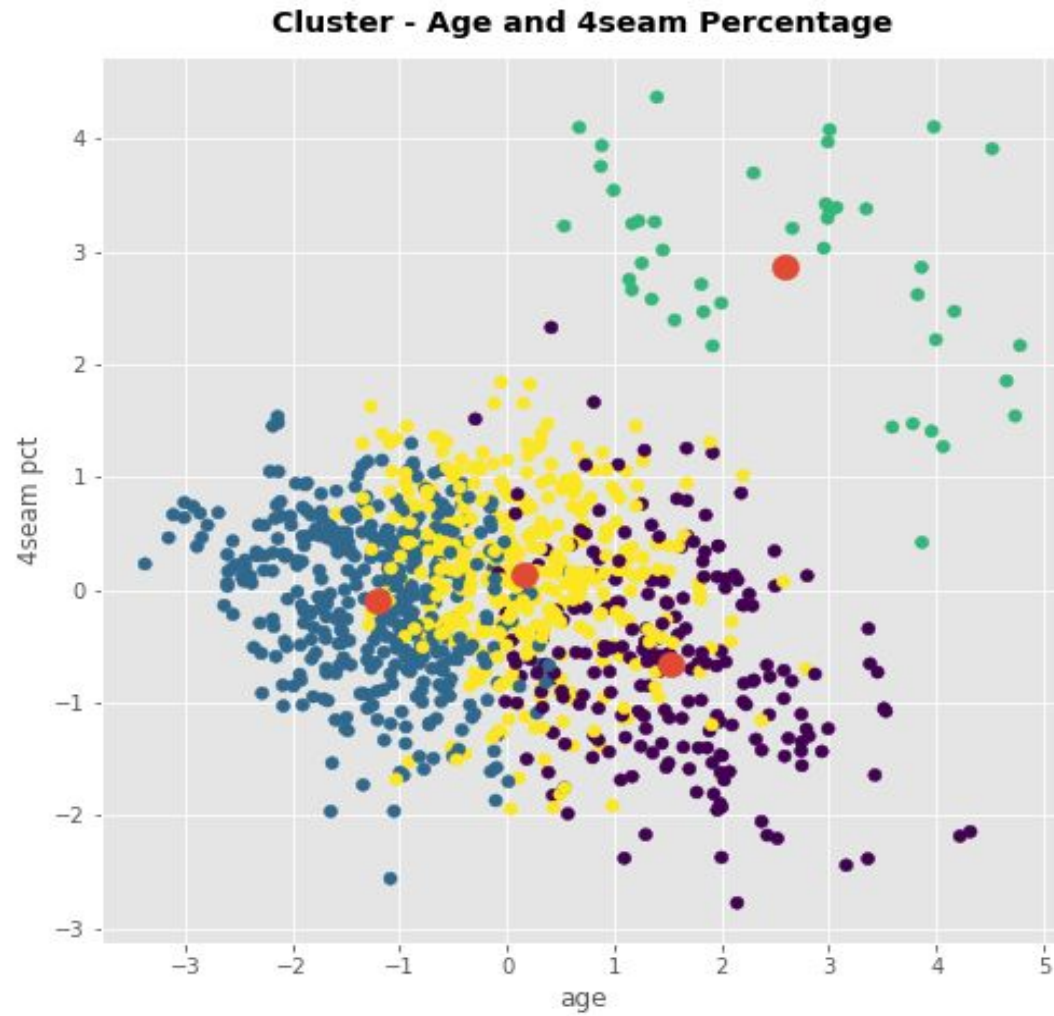
Determining Clusters



Model Performance



Model Performance



Model Evaluation

label	Cluster 1	Cluster 2	Cluster 3	Cluster 4
age	31.64	28.8	29.33	27.81
edge %	42.74	41.52	42.68	43.2
poor/weak %	4.42	4.07	4.67	4.27
4seam %	22.34	37	0	43.78
4seam velo	92.32	94.02	0	93.18
ch %	9.4	5.73	13.37	16.63
sl %	4.82	33.2	14.76	10.72
cu %	26.4	0.93	15.27	2.62
cb %	14.95	4.34	10.13	14.64
throws	0.68	0.79	0.53	0.7





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ADD TITLE HERE

Write your relevant text here



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