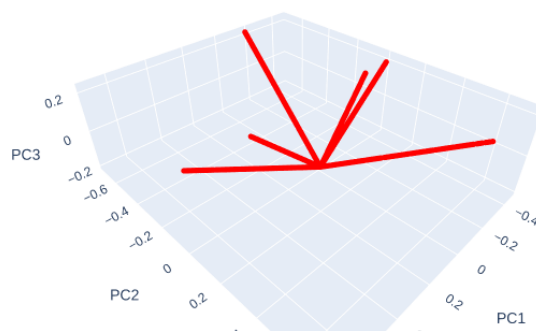| Clusters	Shape	Dimension	Center	Parameters	Points
Cluster 1	Cubic Cloud	6 Dimensional	[15, 80, 15, 80, 15, 80]	Length: 15	4000
Cluster 2	6 Dimensional Tripod	6 Dimensional	[0.08449107, 0.08178346, 0.08159672, 0.07987057, 0.0867673 ,0.08799652]	Length: 1 (Unit Vector projections in 6D)	2400
Cluster 3	Rectangle	2 Dimensional	[75, 75, 75, 75, 75, 75]	Length: 10 Width: 5	3000
Cluster 4	Cuboid	3 Dimensional	[25, 25, 25, 75, 75, 75]	Length: 5 Width: 5 Height: 10	3500
Cluster 5	Circle	2 Dimensional	[70, 60, 50, 40, 30, 20]	Radius: 2.5	2500
Cluster 6	Line	1 Dimensional	[15, 15, 15, 15, 15, 15]	Length: 25	2000

Plots for Cluster 1 - 3
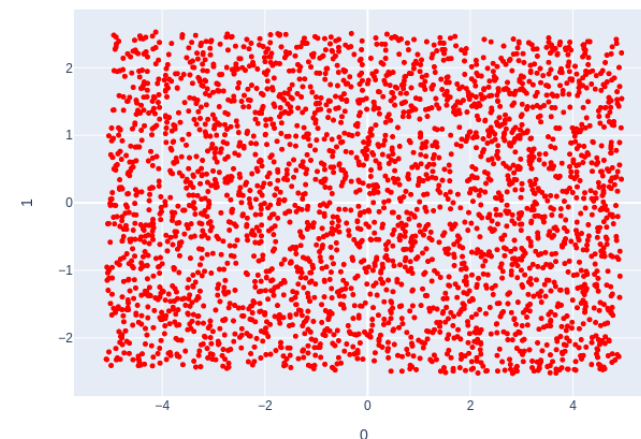
Cluster 1 Cubic Cloud	Cluster 2 6 Dimensional Tripod	Cluster 3 Rectangle
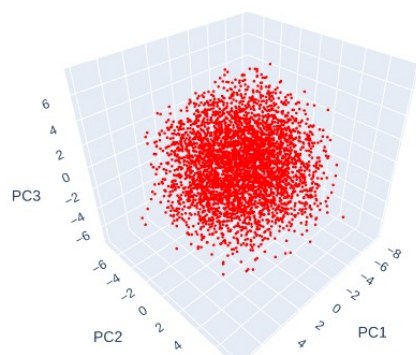
Cluster 1 PCA plot

Cluster 2 PCA plot

Cluster 3 PCA plot

Plot for Cluster 4 - 6

Cluster 4 Cuboid	Cluster 5 Circle	Cluster 6 Line
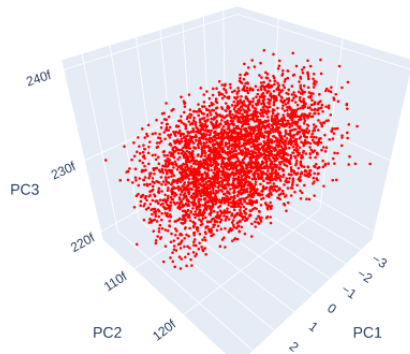
Cluster 4 PCA plot

Cluster 5 PCA plot

Cluster 6 plot