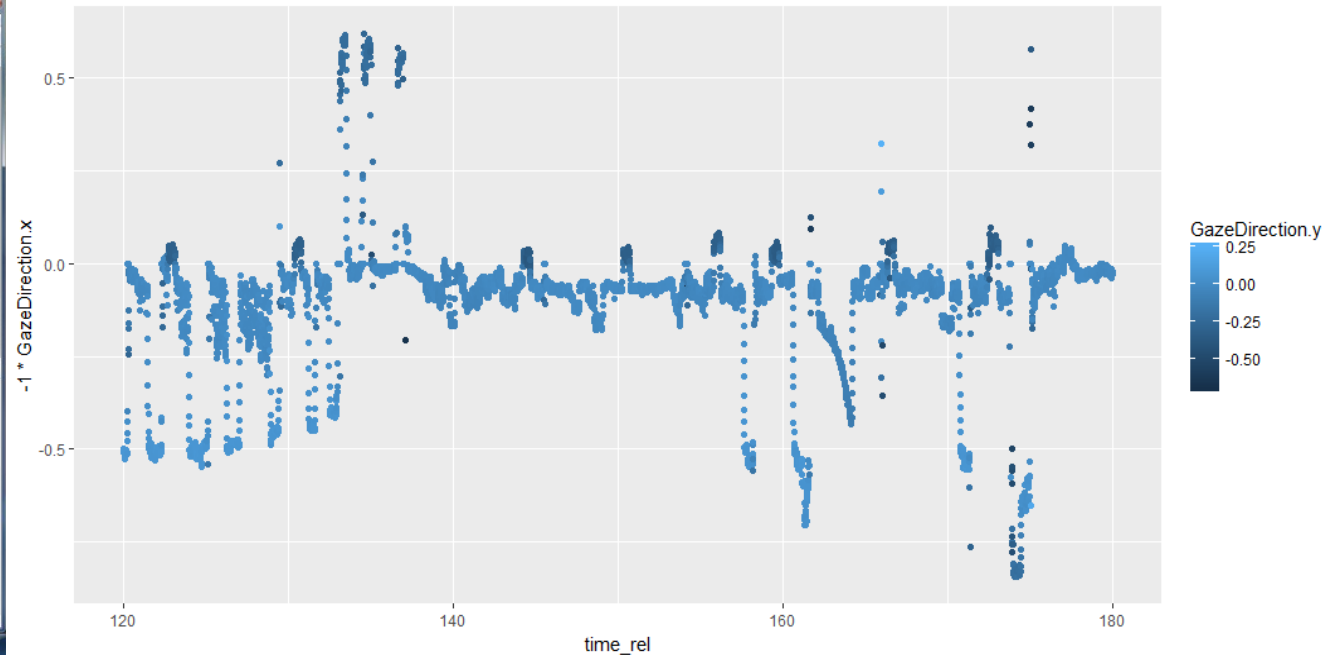
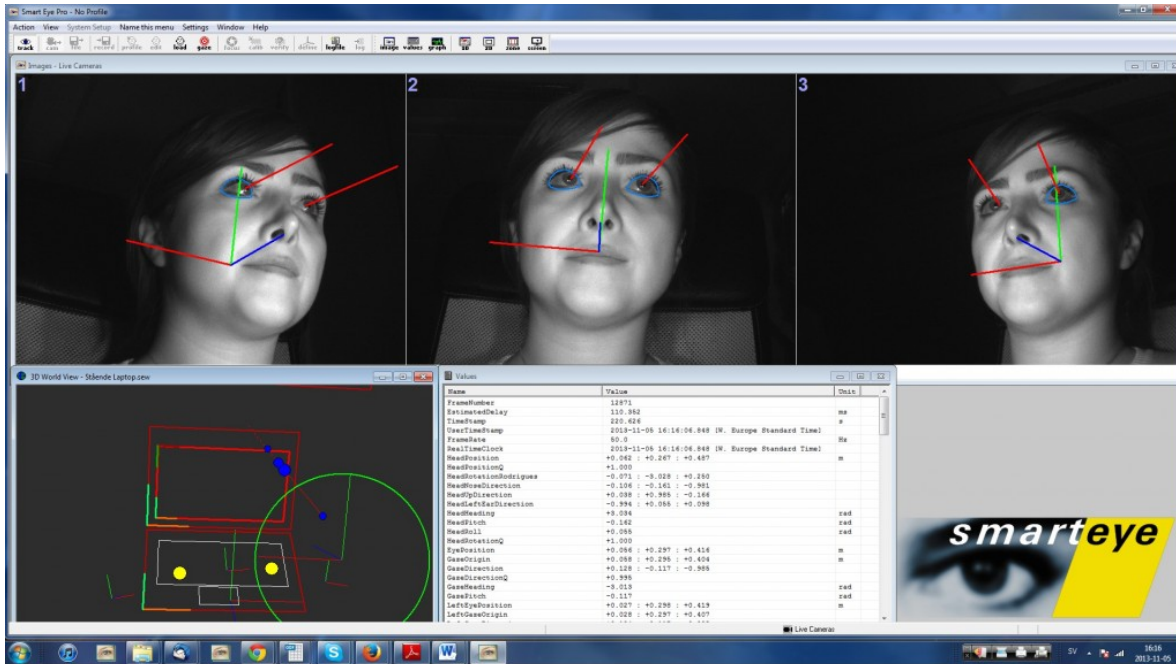


Eye Tracking Data Clustering

TONY LIN

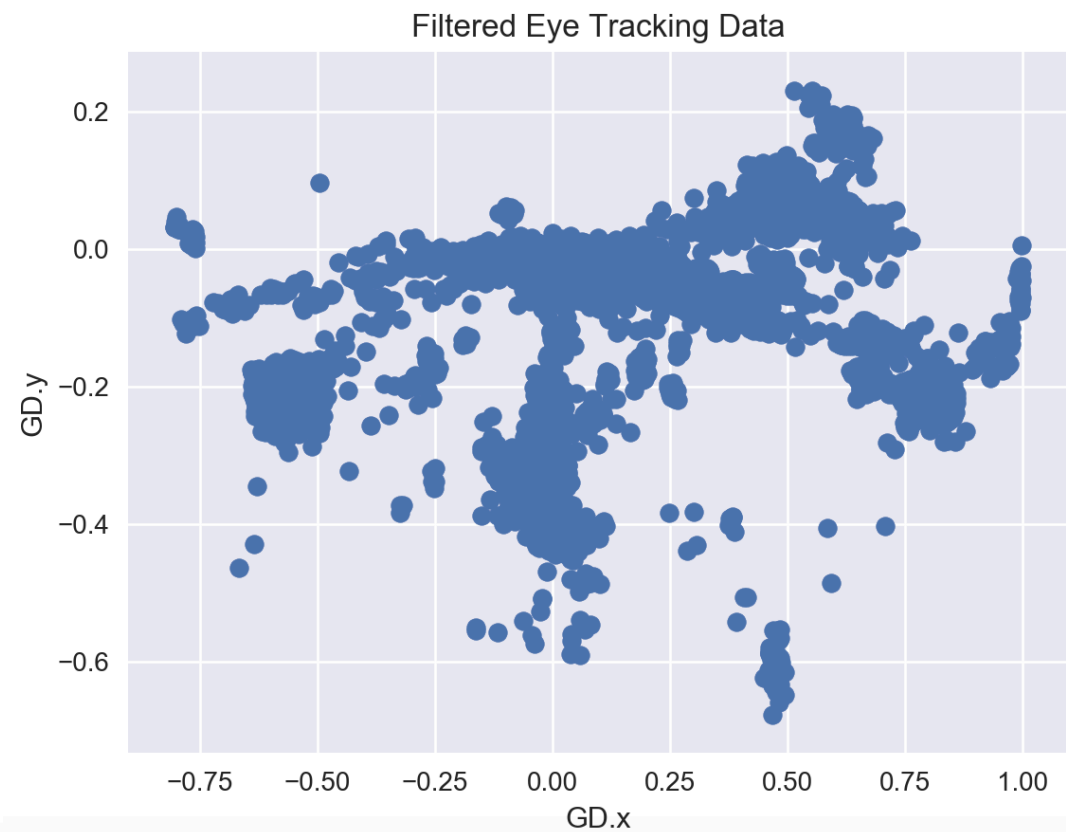
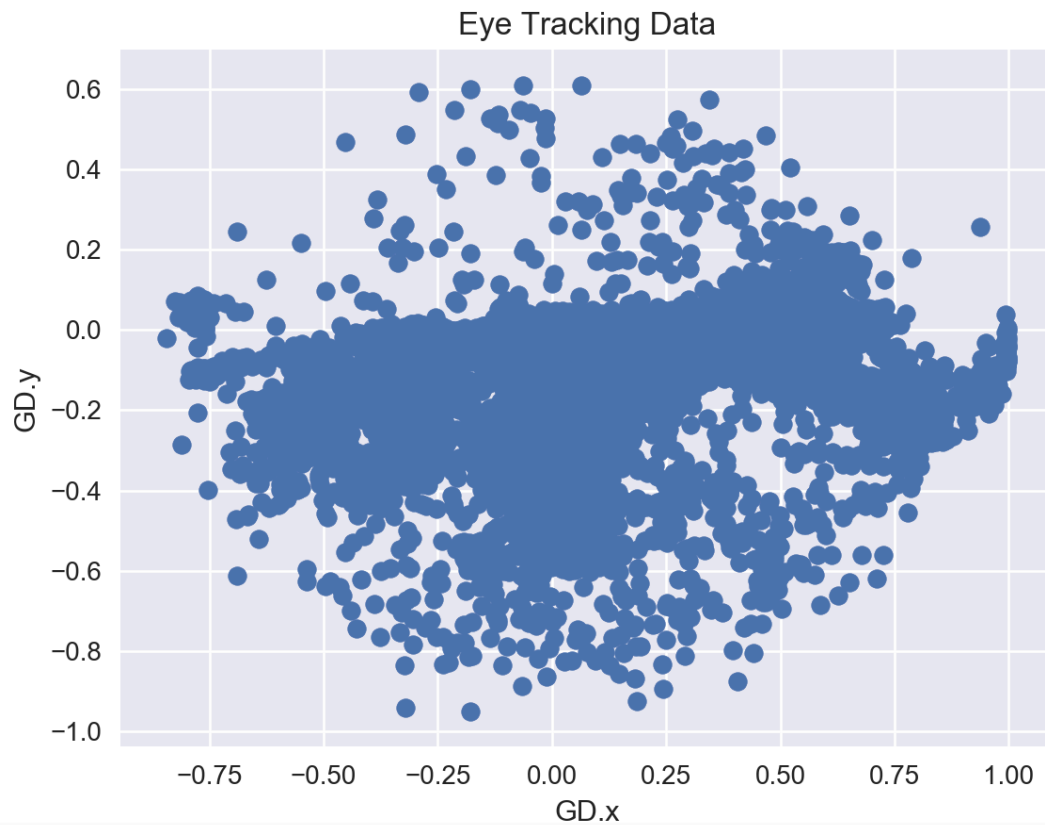
Problem Setup

- Obtained eye tracking data such as time, gaze directions, head rotations, and more
- See what can be gained by looking at raw eye tracking data from a driving simulation



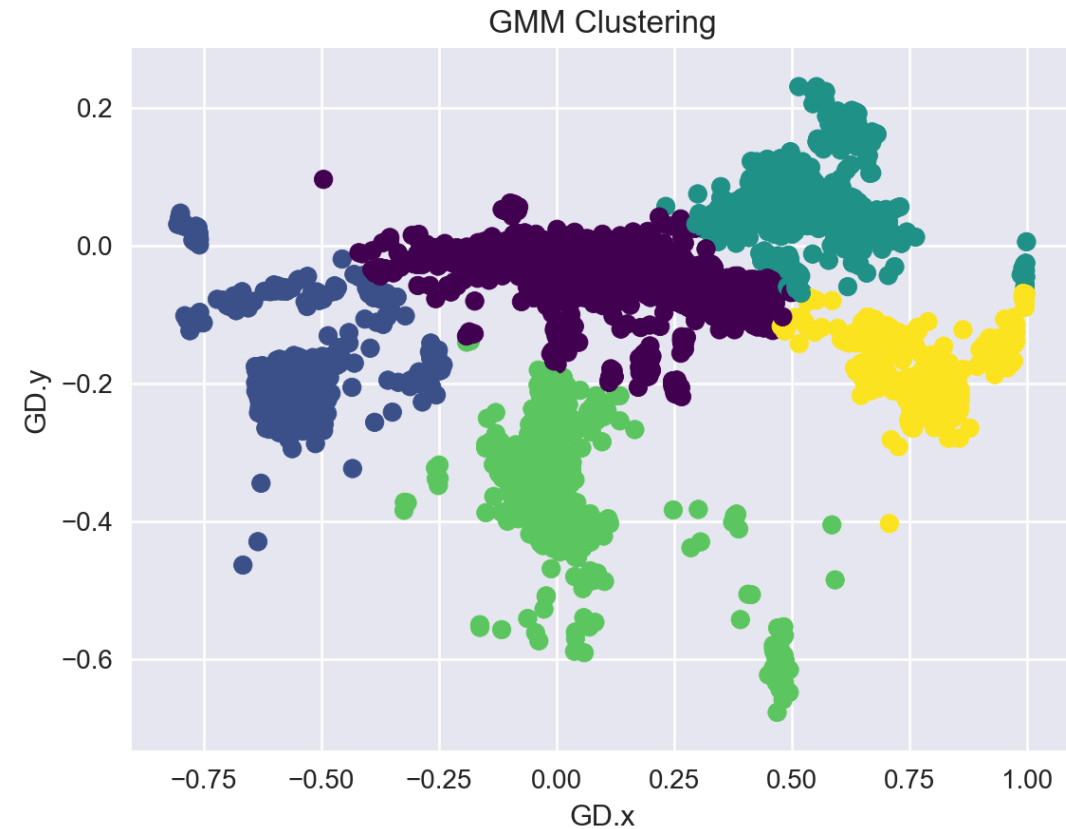
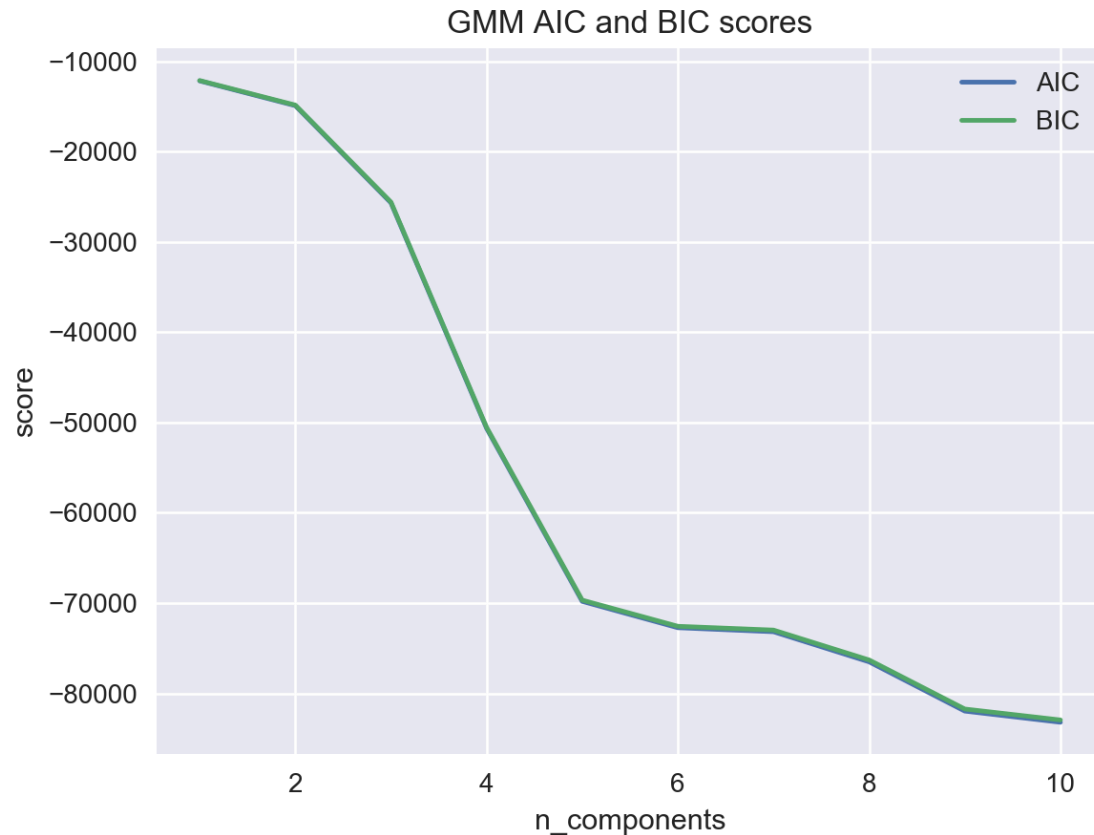
Methodology

- Look at saccades, fixations, and AOIs

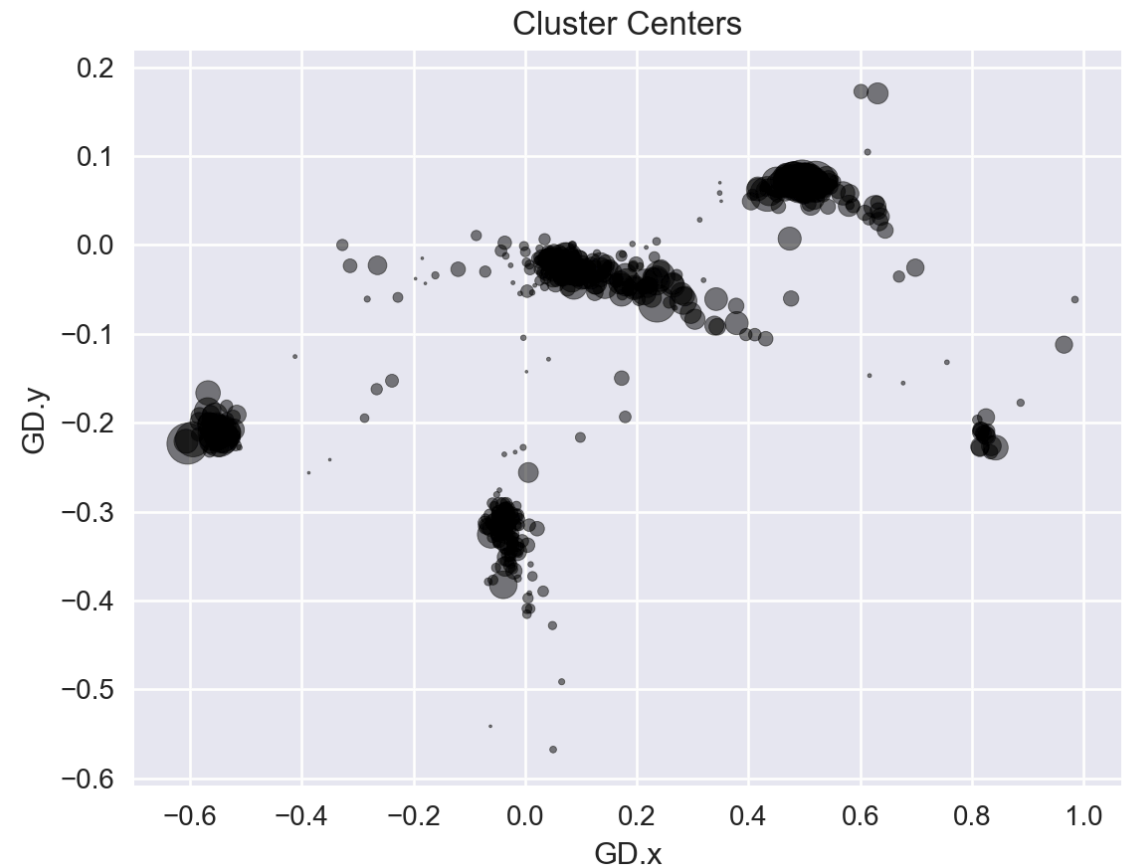
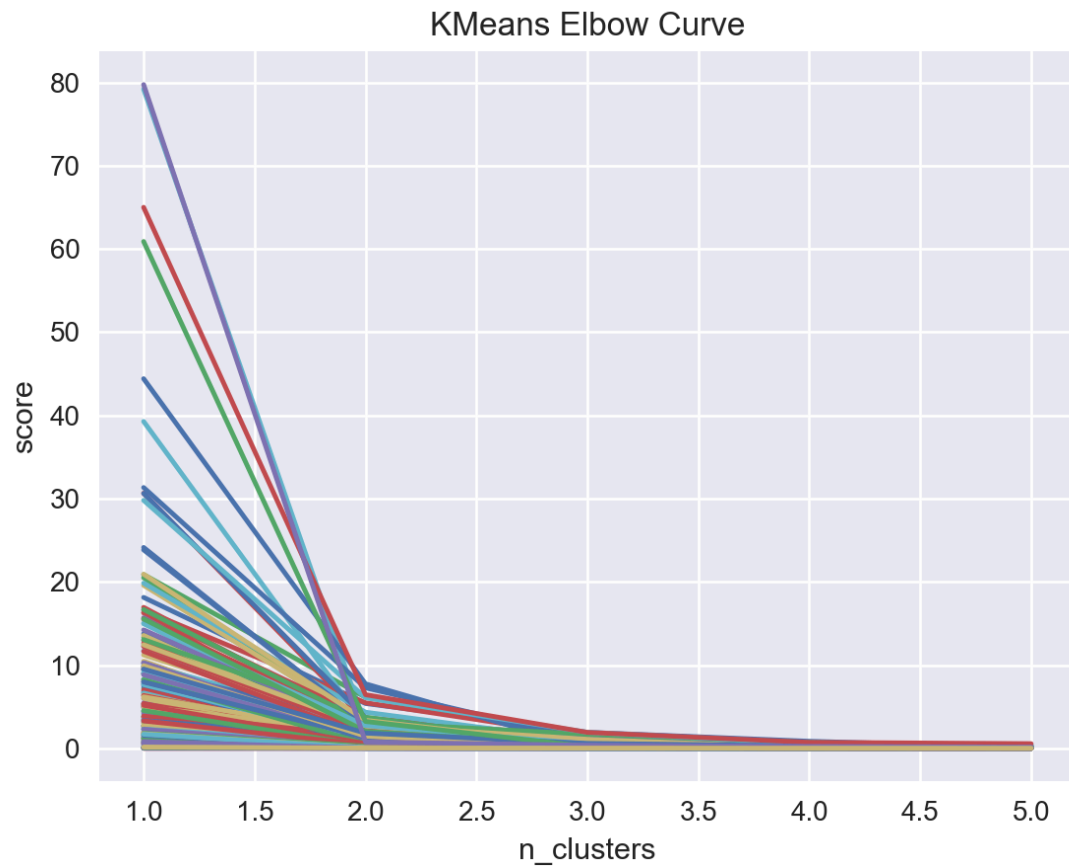


Direct GMM

- AOs are typically predefined; we look at two data-based unsupervised approaches

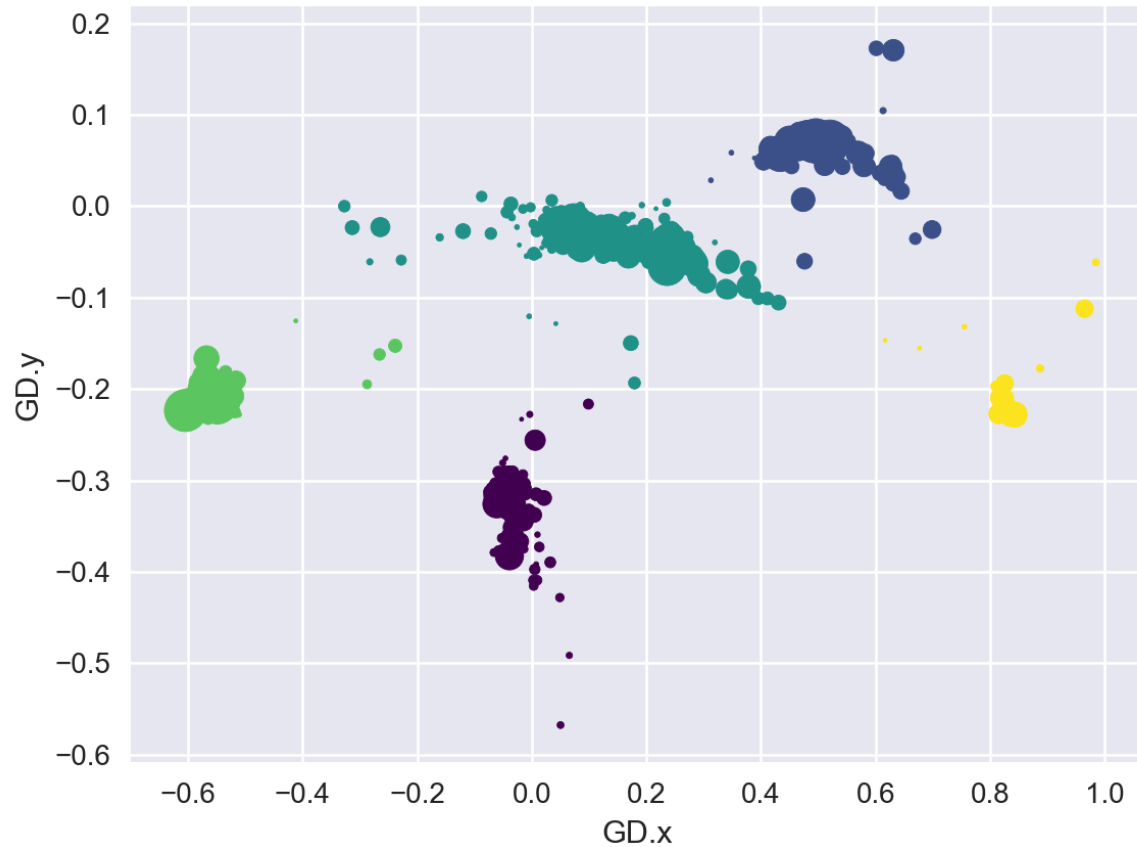


KMeans + GMM

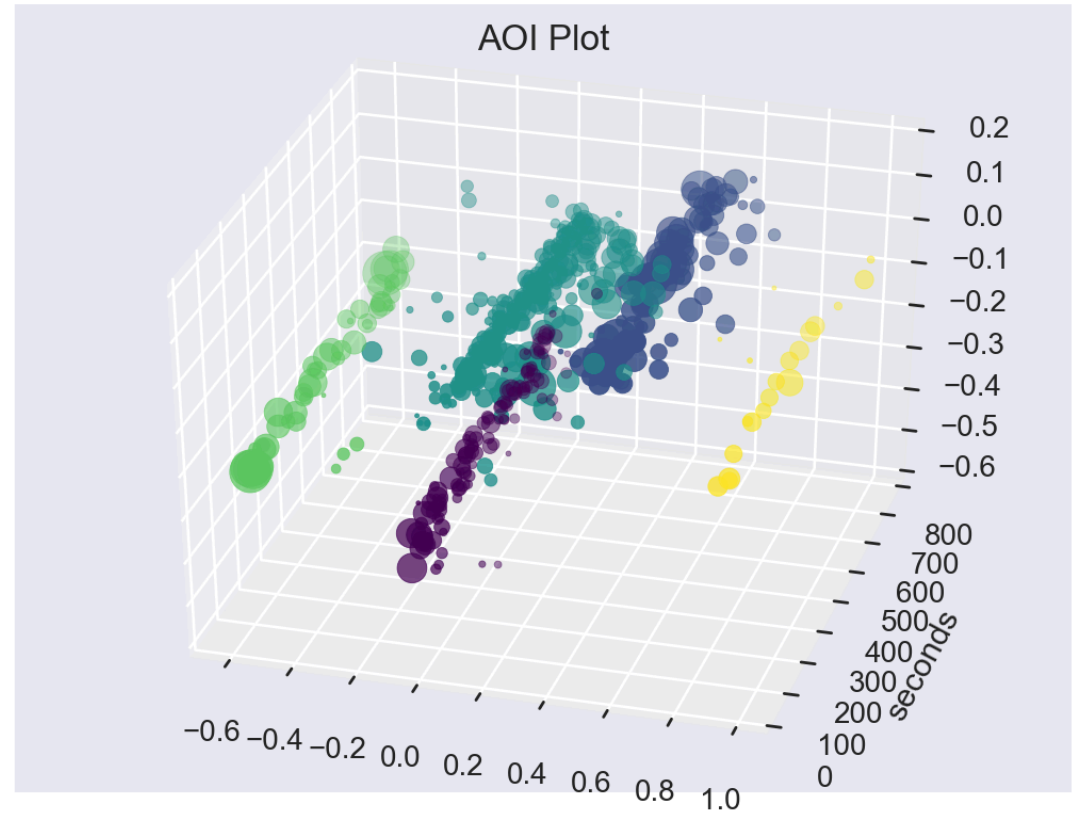


KMeans + GMM

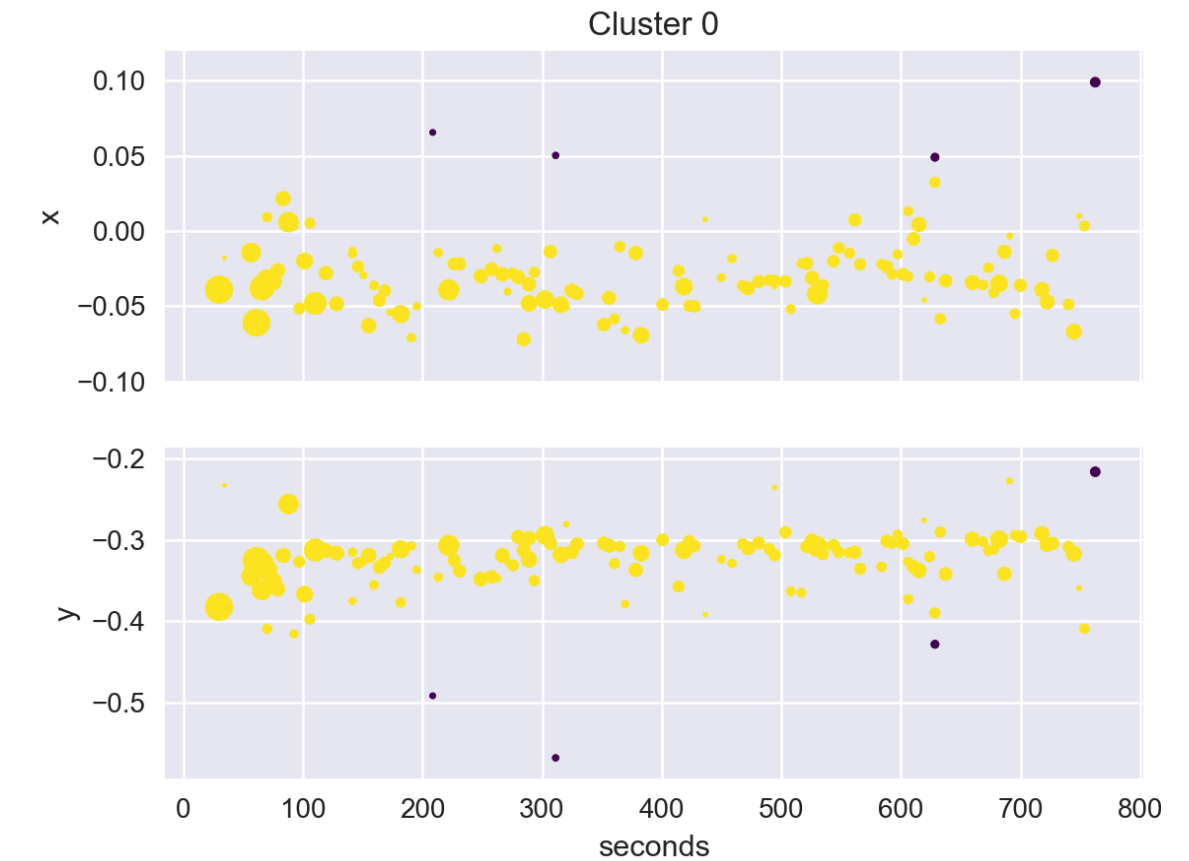
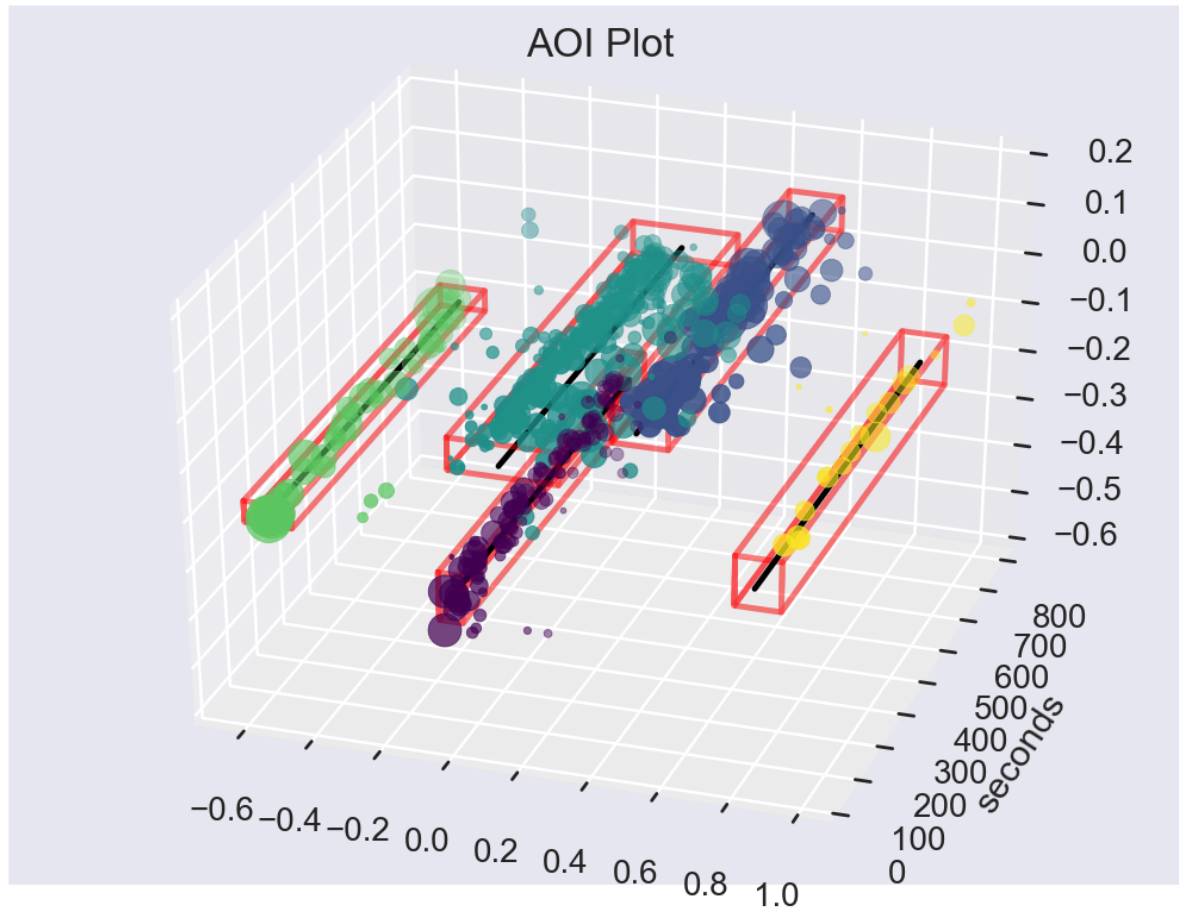
GMM Clustering



AOI Plot

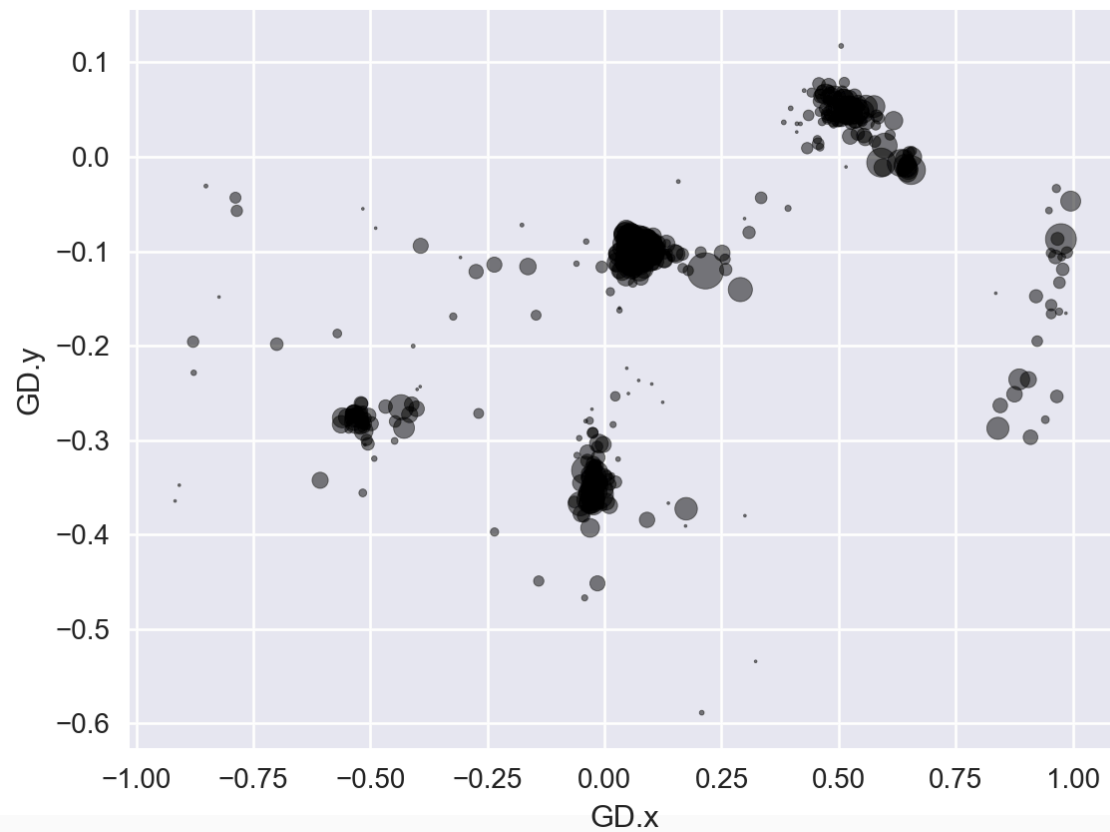


AOI Detection

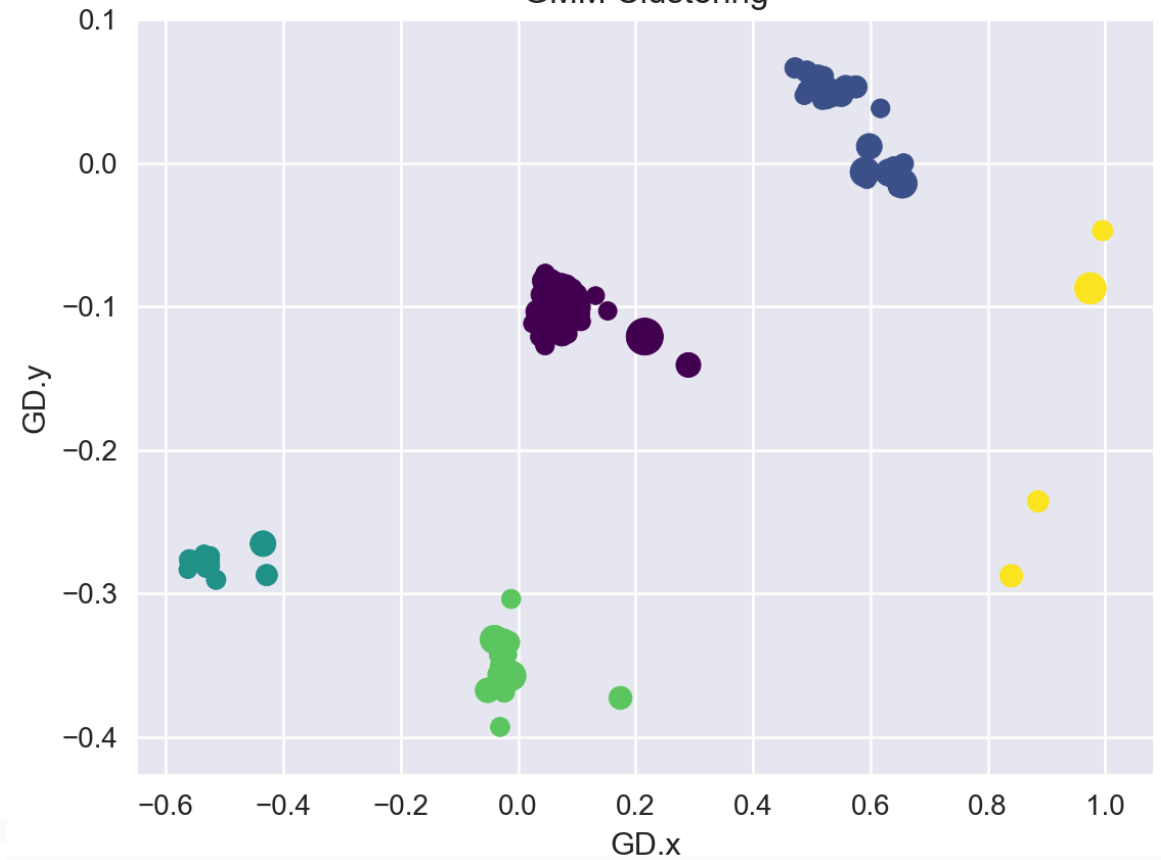


Discussion

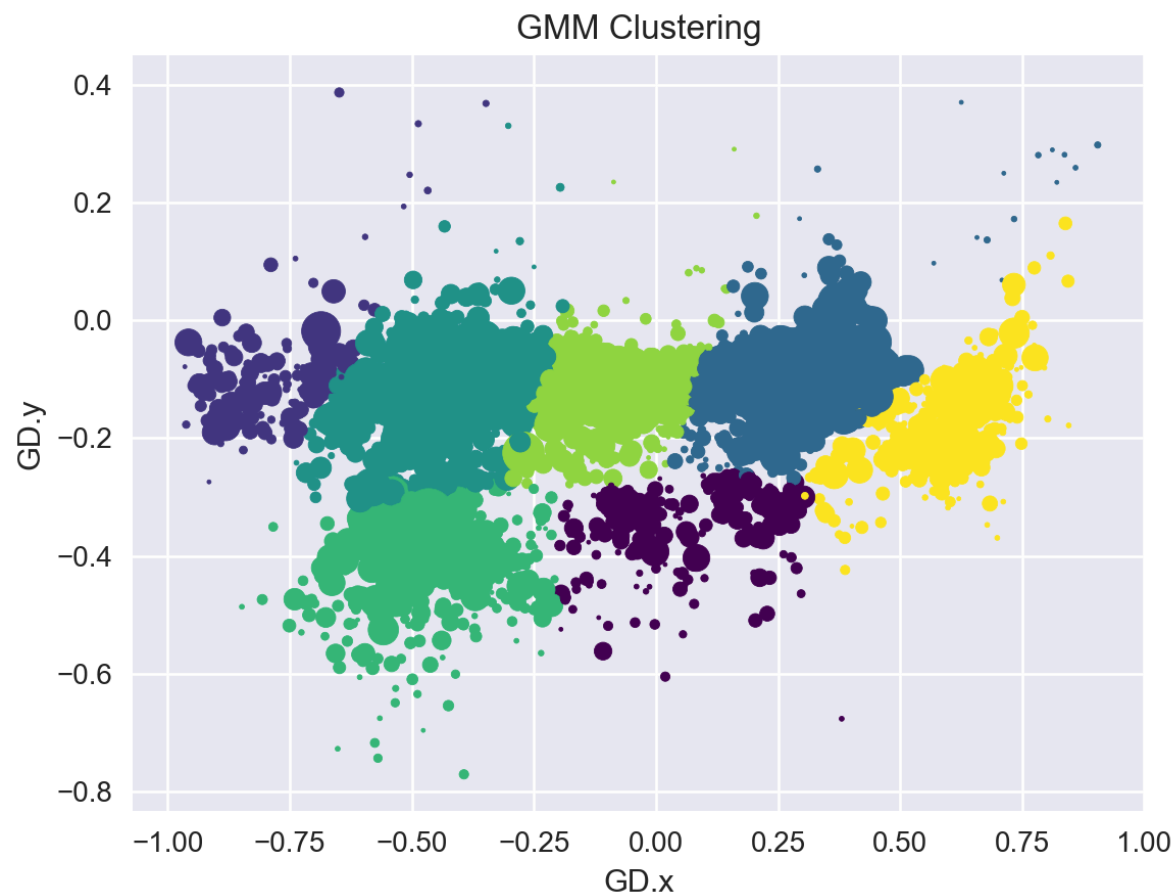
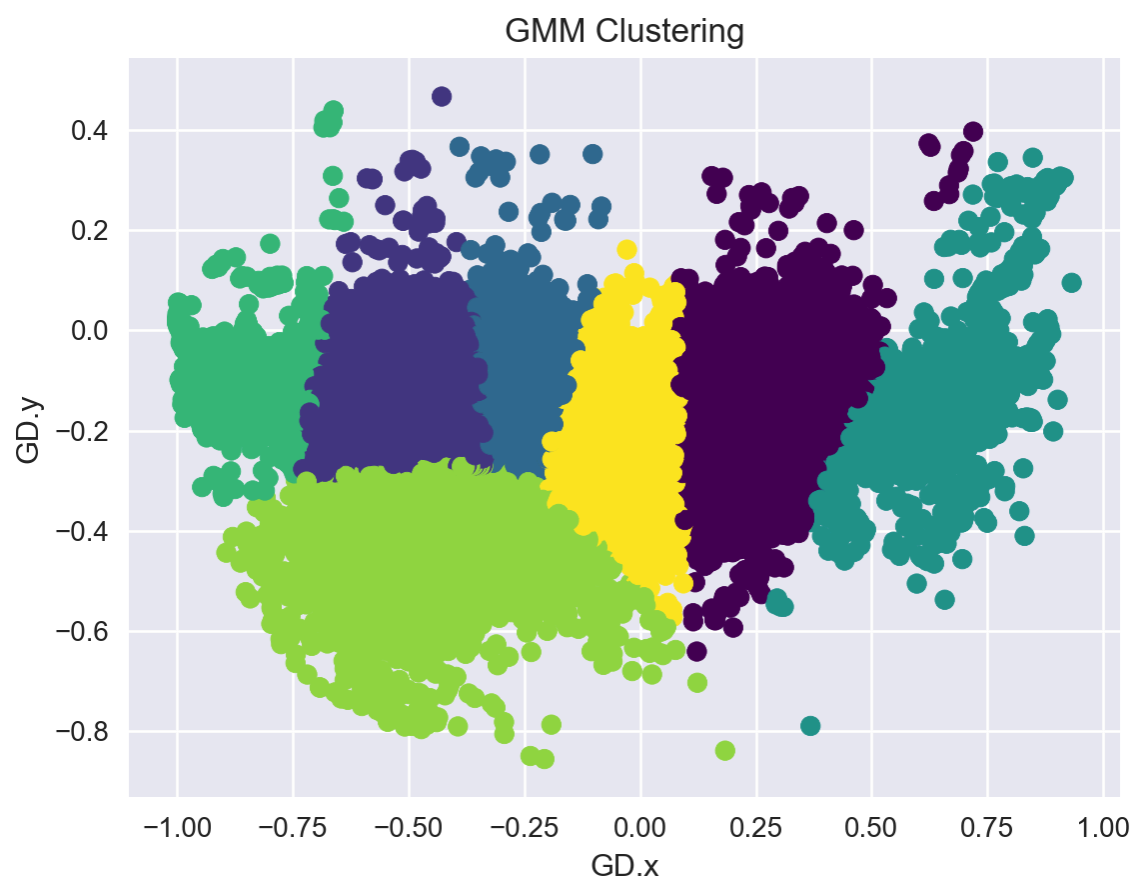
Cluster Centers



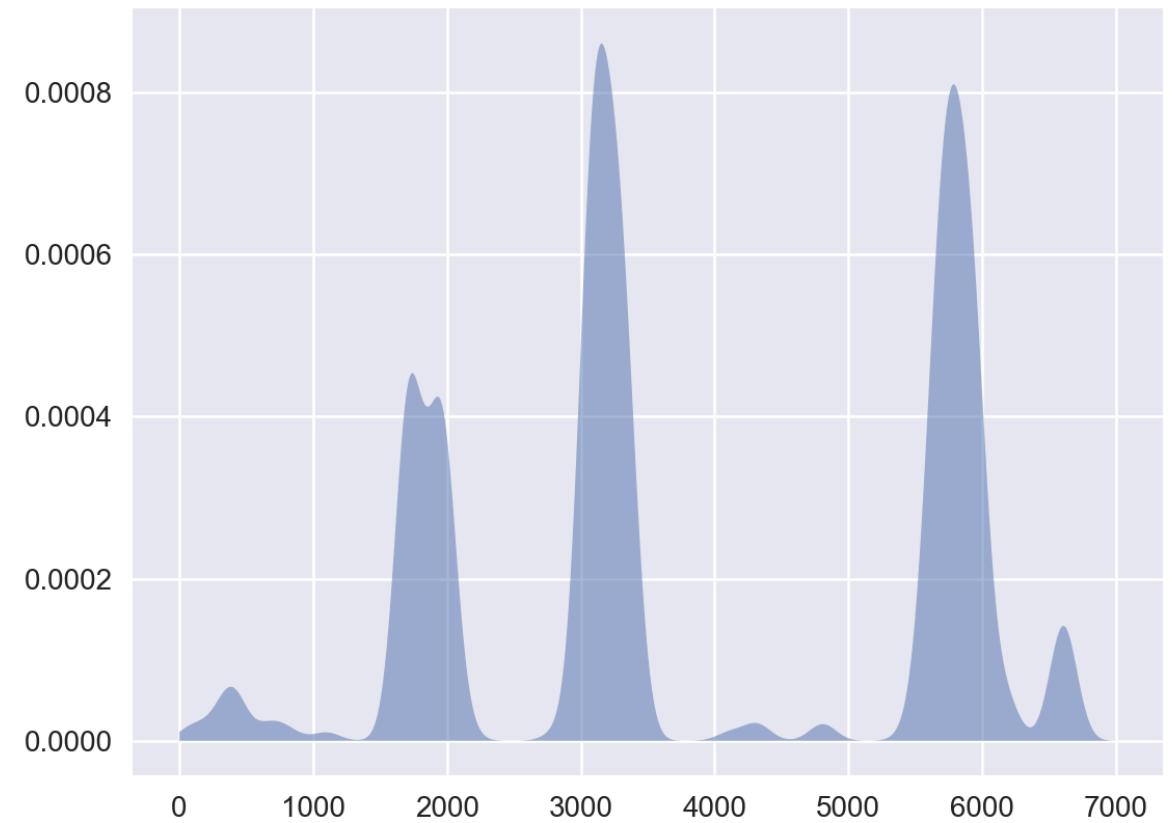
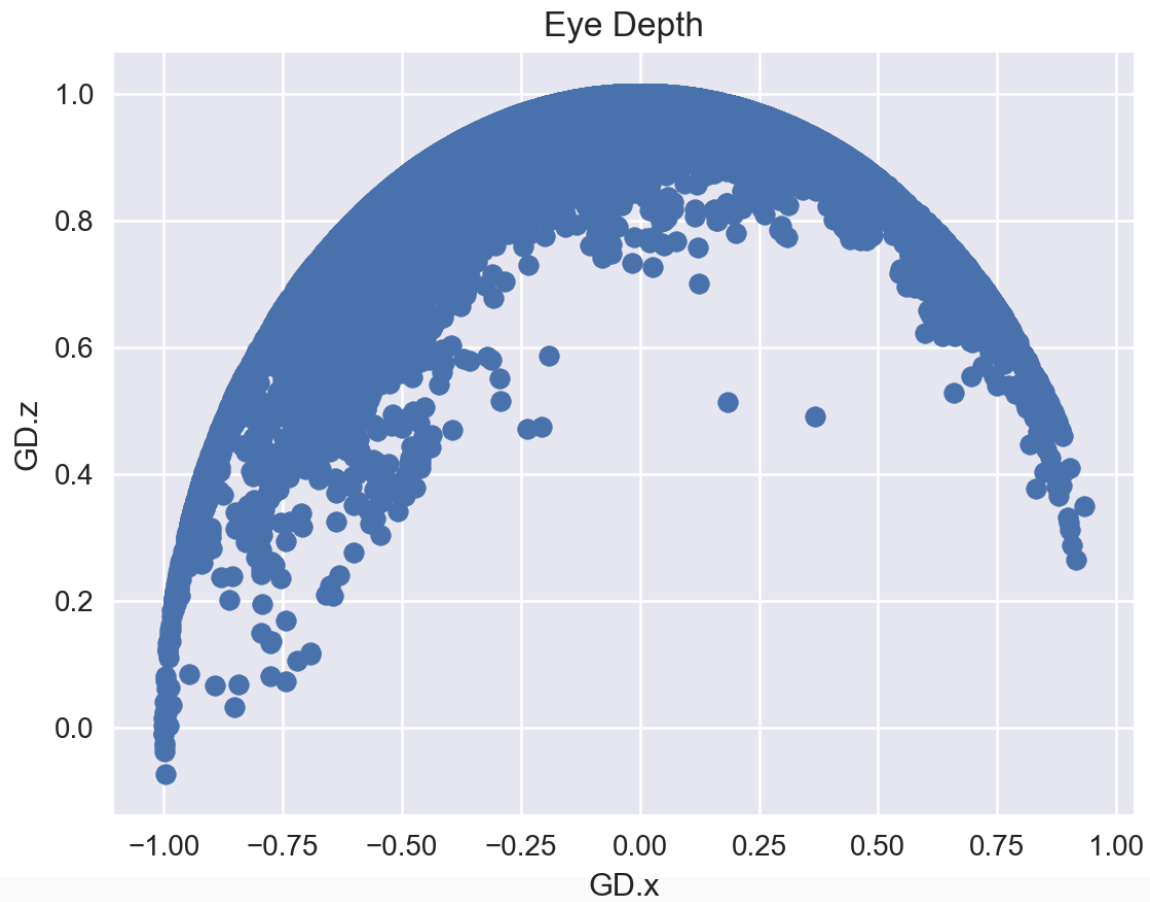
GMM Clustering



Discussion



Discussion



Thank you!
