

# Advertise to "The One"

The Optimization Model

Group: Data Storm

Group Member: Yue Hu, Yin Zhang, Chen Peng, Yaodong Wang, Minghui Xiong

## BACKGROUND

**RFHAVIOR Dataset ADWORDS Dataset** Browsing Pattern Recognition Preference for Events & Advertisement ····i·· Connection to ADWORDS Dataset ···· : Connection to BEHAVIOR Dataset ···· Advertisement Segmentation •••• Match BEHAVIOR With Advertisement Categories

**PROCEDURE** 

**CLUSTERING** 

There are six types.

CLASSIFICATION

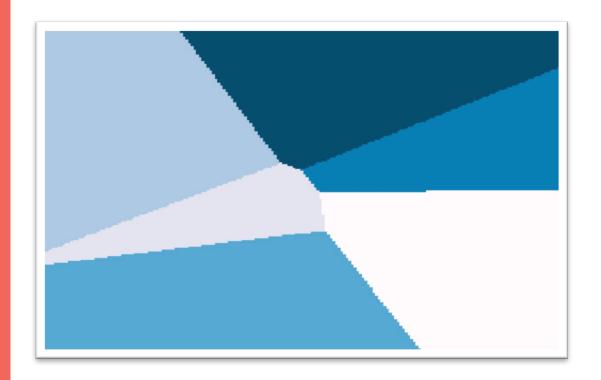
Match behaviors with ads types.

**PREDICTION** 

**♦**Whar do new customers prefer?

## CLUSTERING - Advertisement

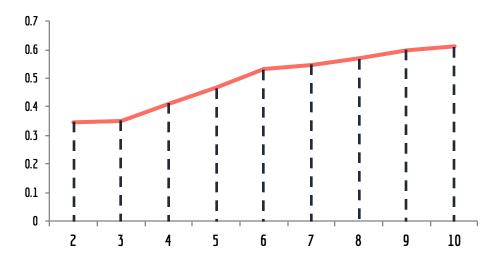
### VISUALIZATION 📛



Ad Segmentation – Decision Boundary PCA Top 2 Components

We selected the number of clusters to 6 based on the Silhouette score method for K-means clustering.

#### Silhouette Score 💆



## **PREDICTION**

Multi-label classification
Neural Network (\*\*)

