Dummy Bank

Feb 4th 2022

Gerard and Pooja

Objectives

Create two customer segmentation

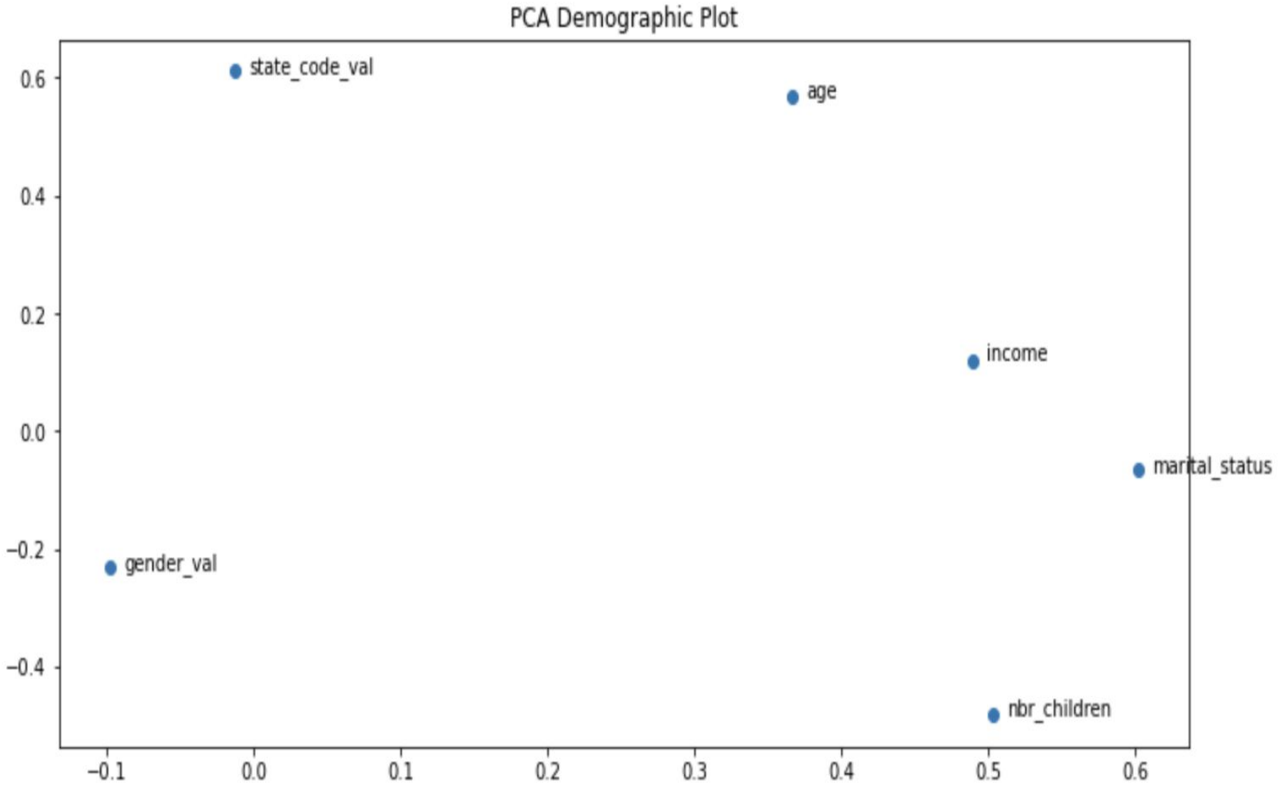
Visualize segmentations using radar charts

Visualize segmentations using scatter plot

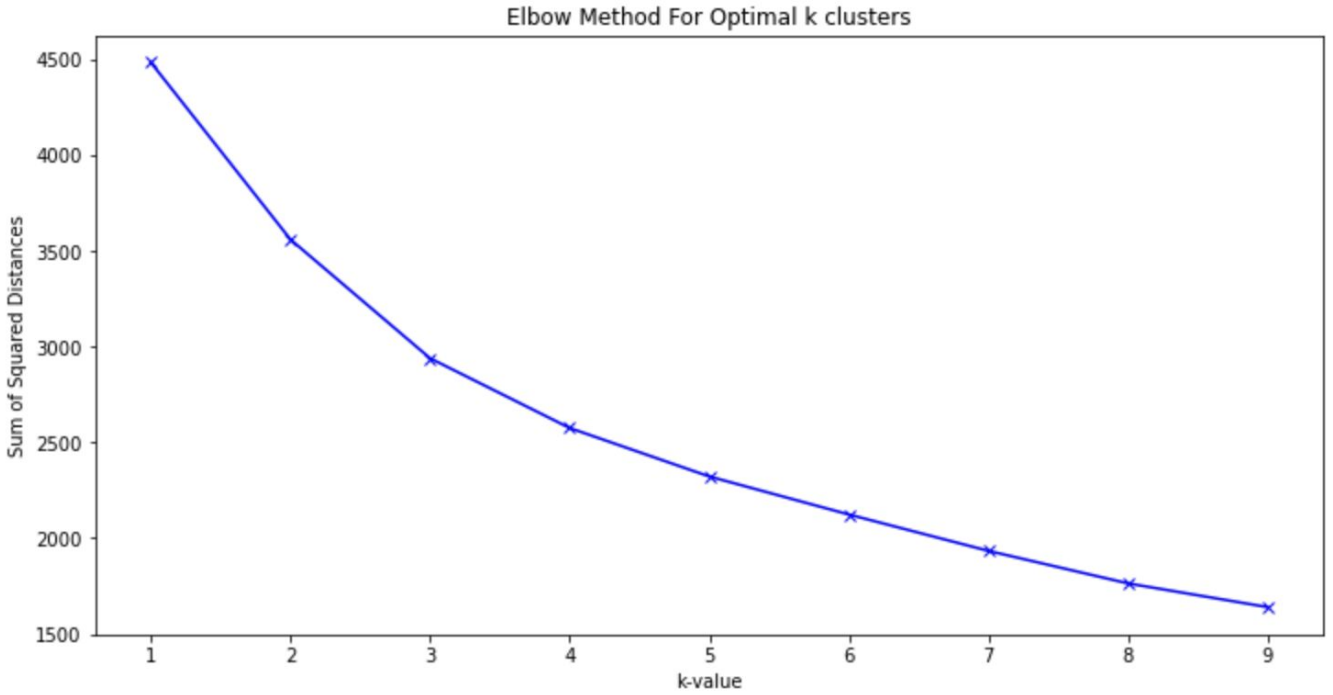
Customer Demographic Features

Customer features	Feature details	Feature Modification
income	Income	
age	Age in years	
nbr_children	Customer's number of Children	
marital_status	Numeric Id for marital status	
gender_val	Gender	Converted from categorical to numerical
state_code_val	Address : State Code	Converted from Categorical to numerical

PCA Components



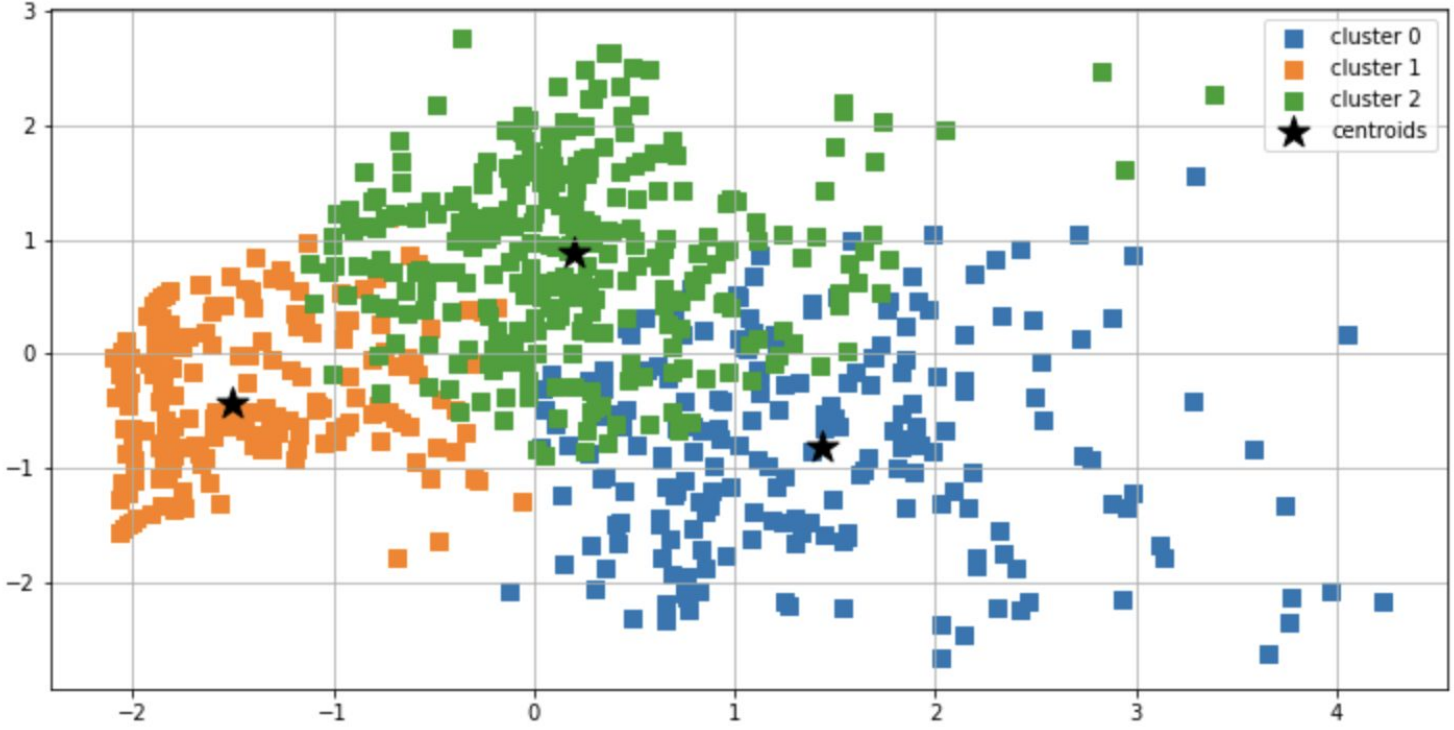
Elbow method for optimal k clusters



(As per above method, optimal number for cluster k is 3)

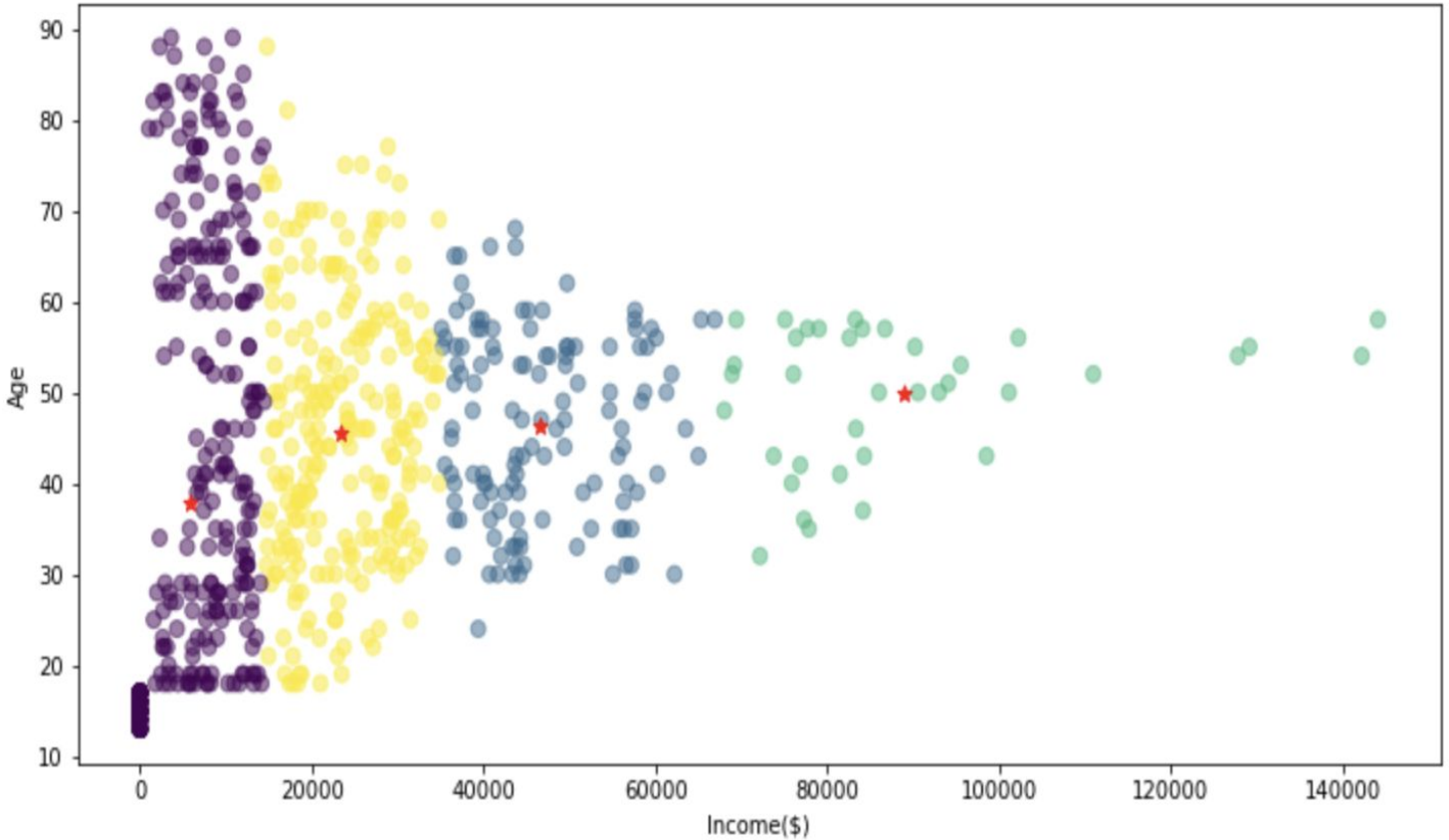
Customer Demographic Visualization

(Optimal scatter plot for k=3)

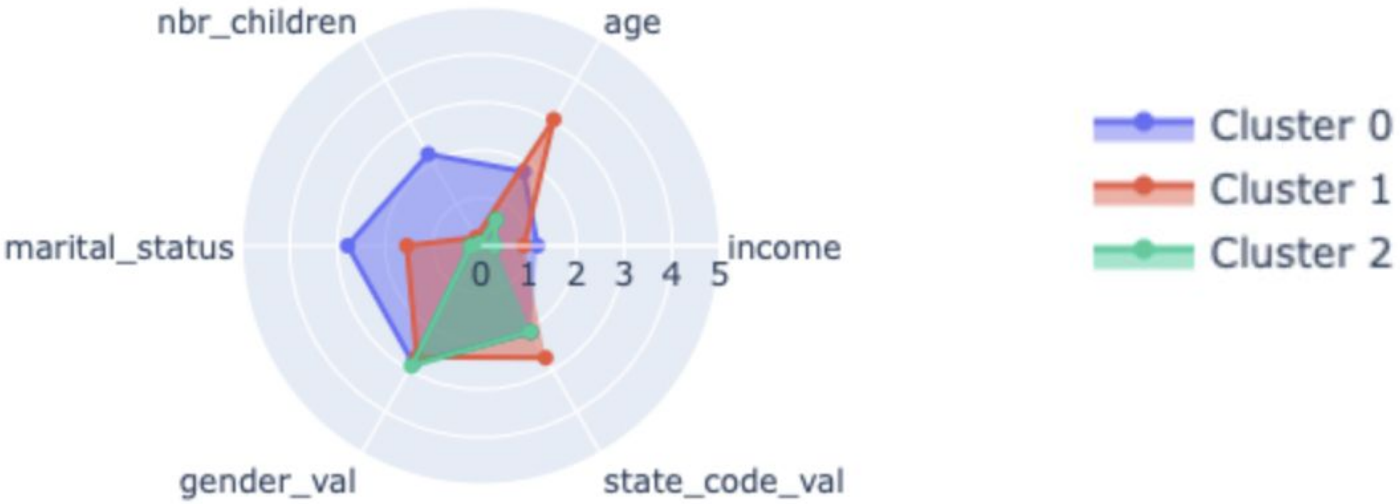


K Means Iterations

(Age & Income)

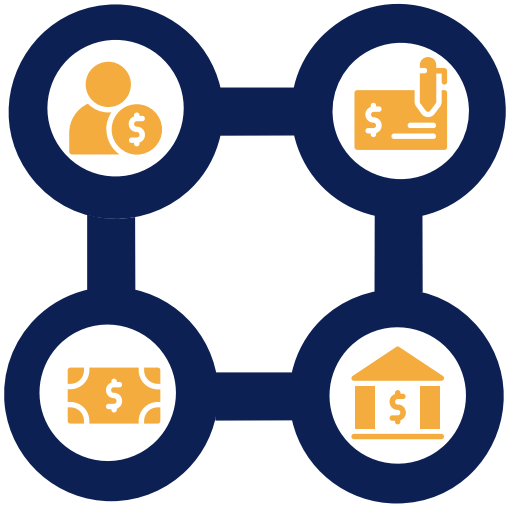


Customer Demographic Radar



Banking Behavior Features

income

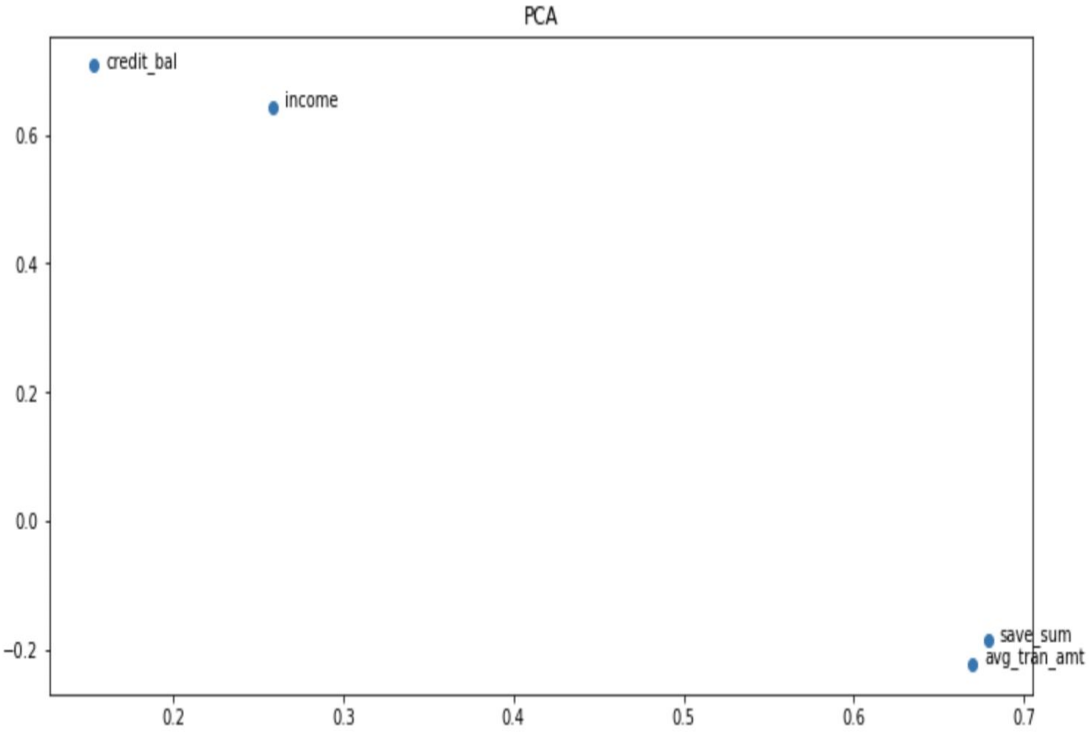


avg_tran_amt

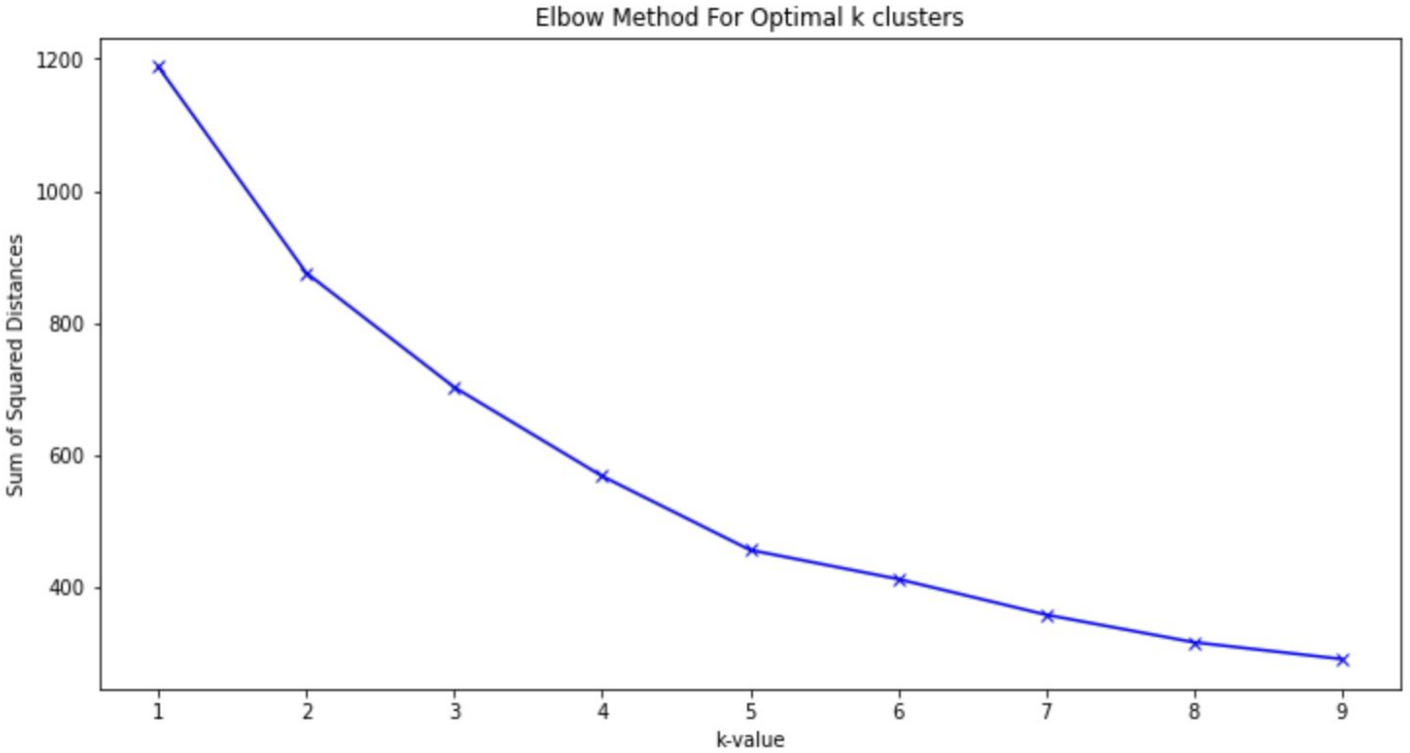
credit_bal

save_sum

PCA Components



Elbow method for optimal k clusters



(As per above method, optimal number for cluster k is 4)

Saving Account

min	max	average
$2,406.27	$11,079.85	$364.43

Credit Account

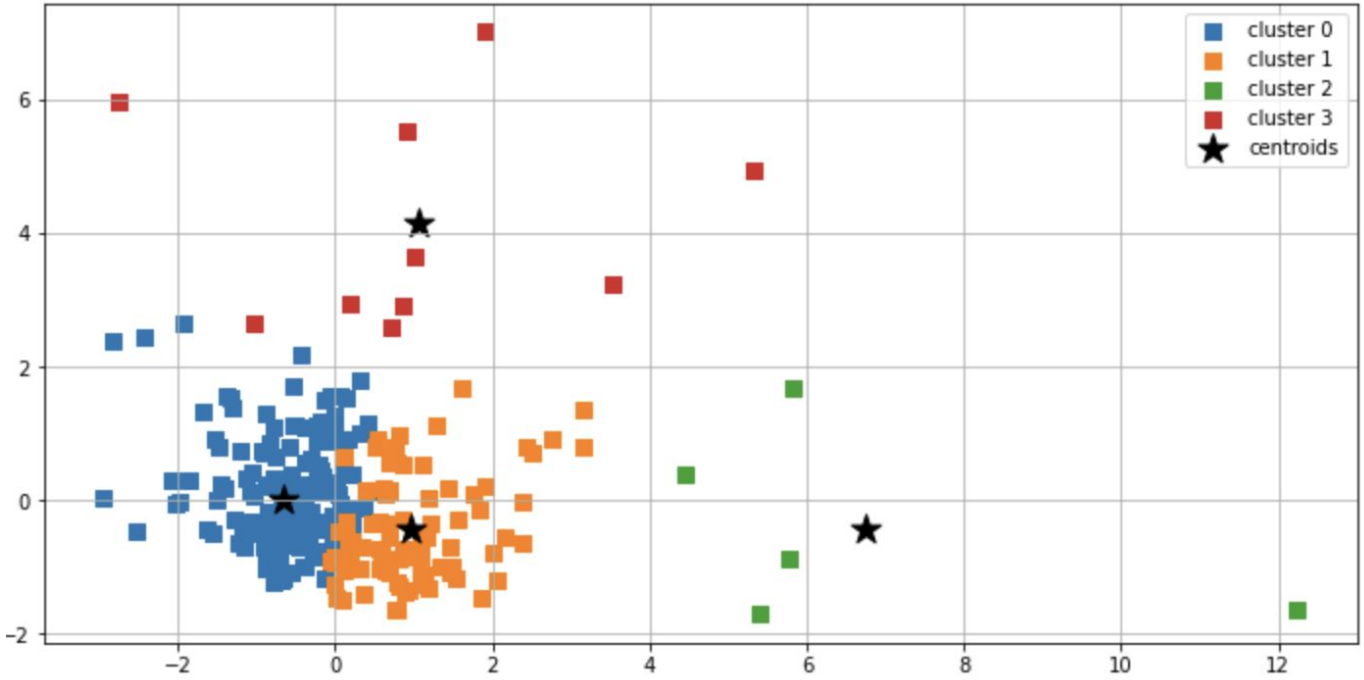
min	max	average
$0.0	$9,500	$1,113.88

Average Transactions

min	max	average
$(91.63)	$201.45	$11.98

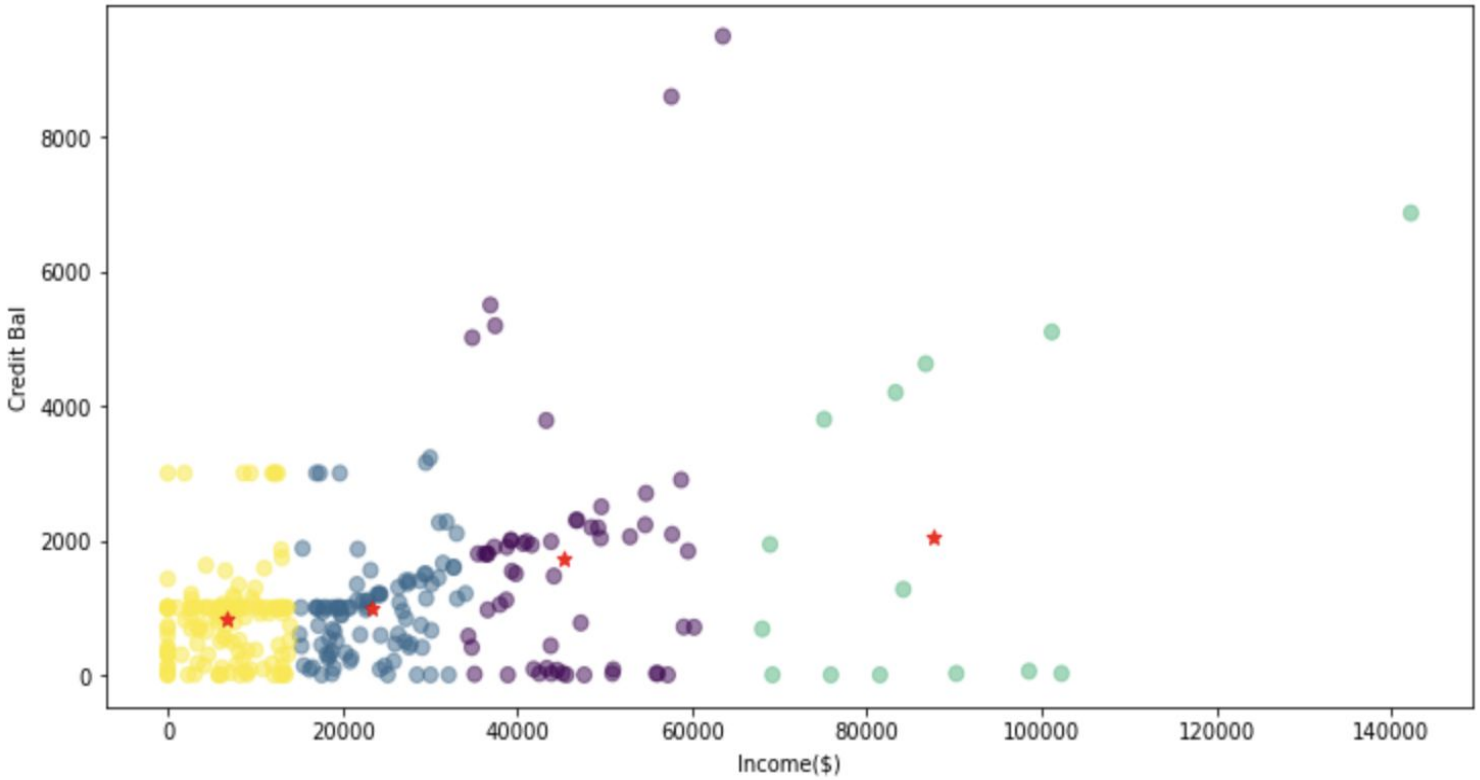
Banking Behavior Visualization

(Optimal Scatter Plot for k=4)

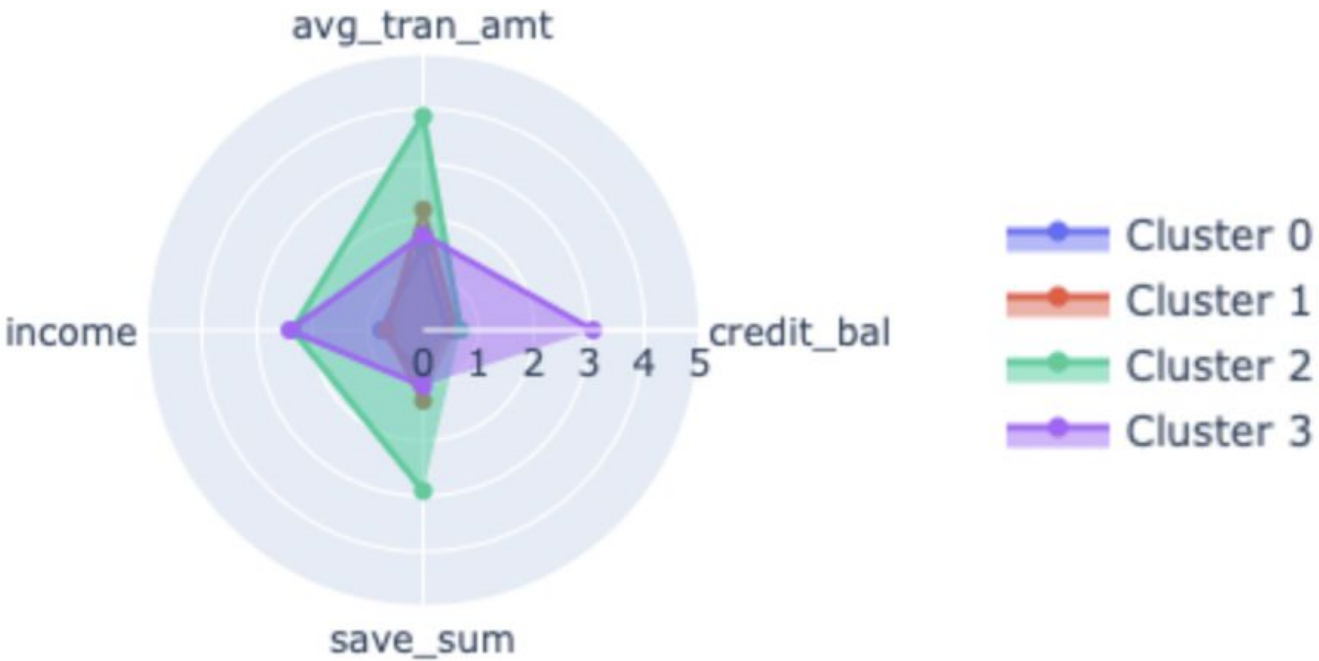


K Means Iterations

(Income and Credit Balance)



Banking Behavior Radar



Thanks!