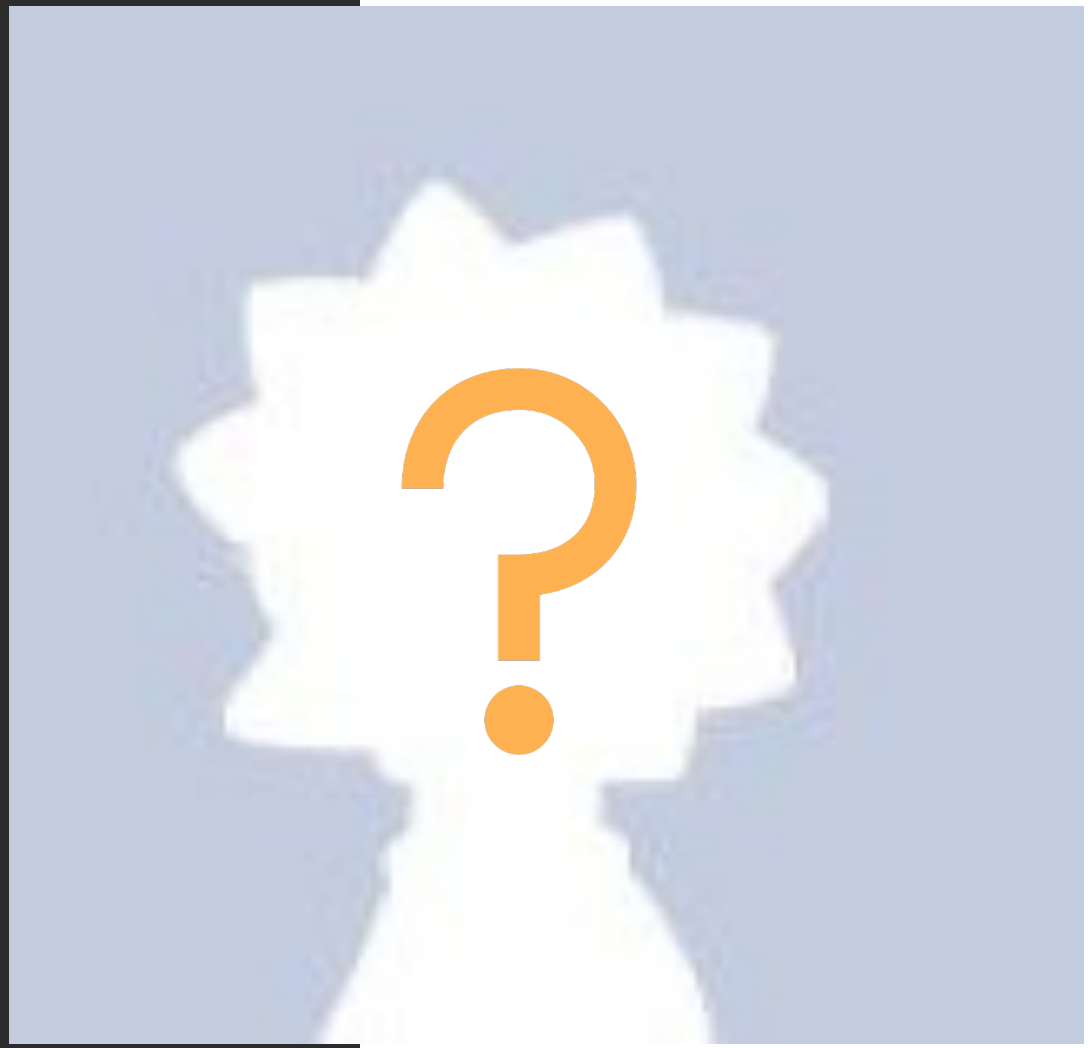
Facebook Campaign Analysis

Customer Profiling for Campaign Conversion



Dimpho Mashile

Winter Cohort Final Project

December 19th, 2019

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- Industrial Engineering: 2013-2016
- Creative Direction: 2014-present
- Data Science: 2019 – Present

About Me

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Why?

- Marry customer to the right ad or campaign: scale personalization

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Why?

- Save time and money by targeting relevant audience

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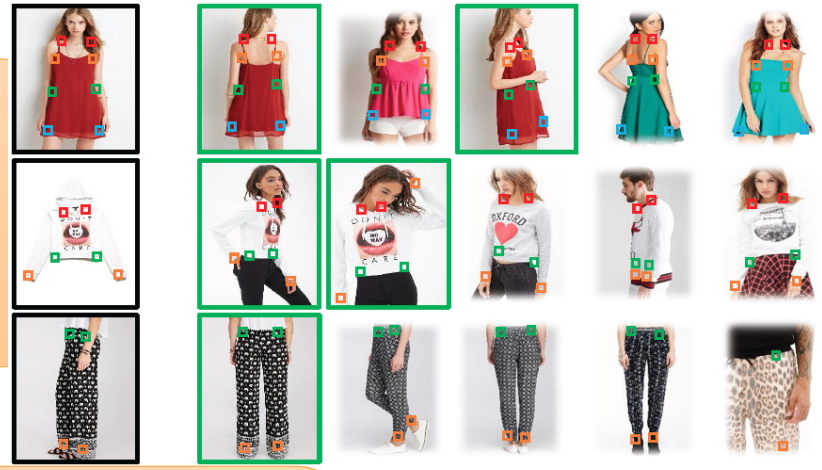
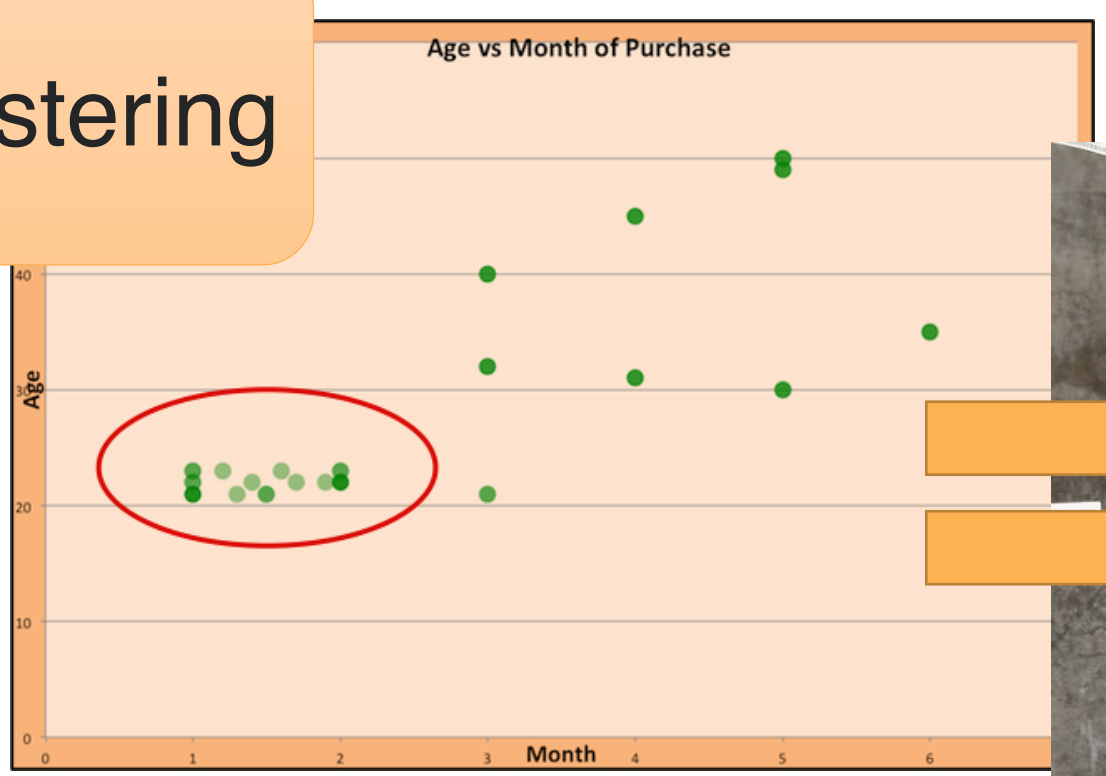
Project journey

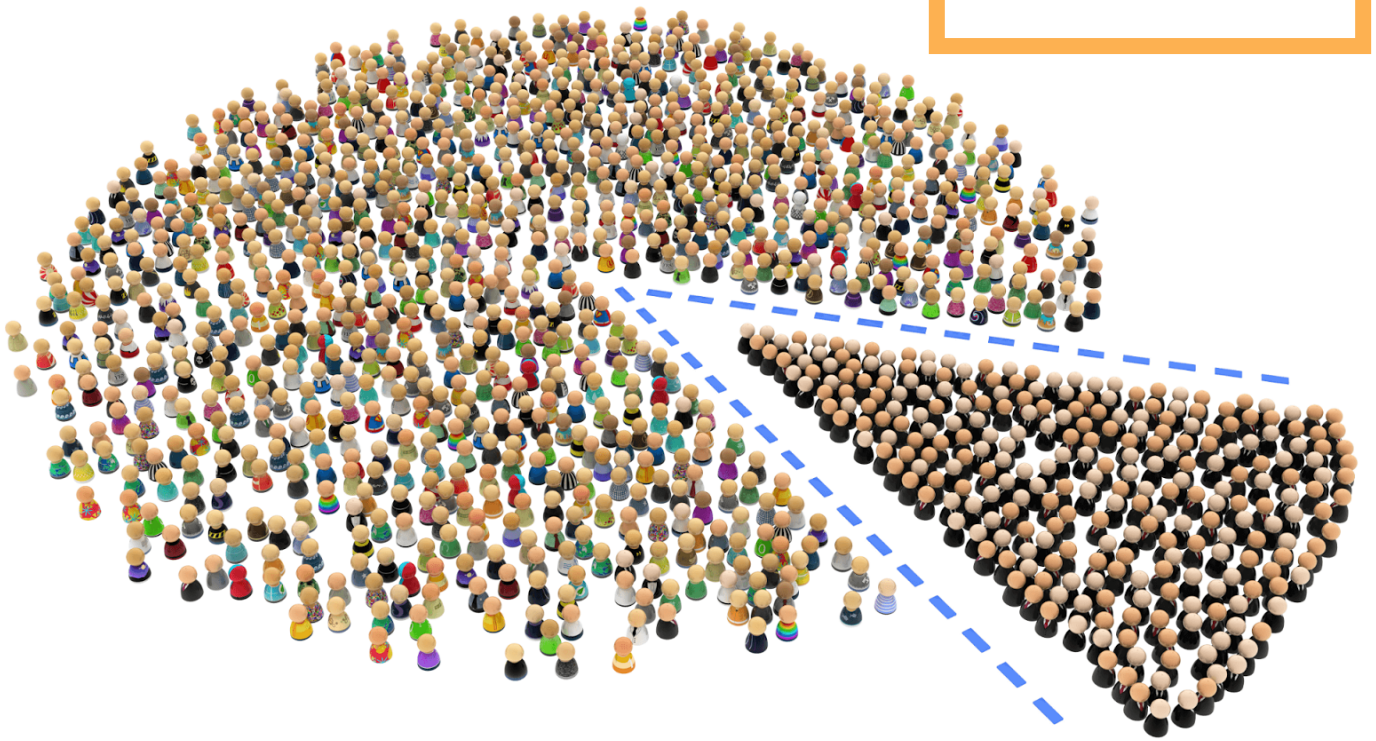
Deep Fashion

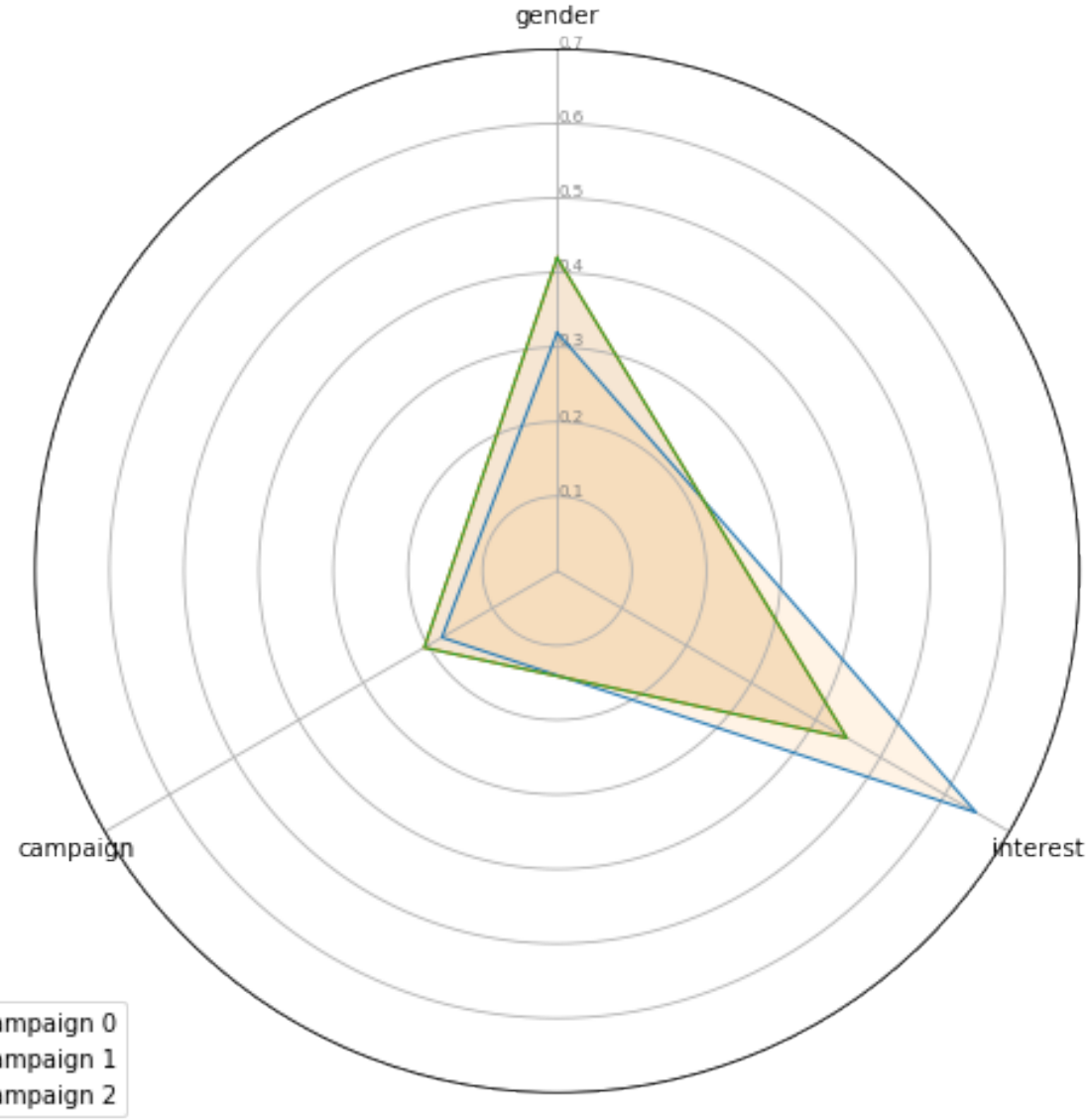


Clustering



Segmentation vs Clustering





About the Dataset

- Sales Conversion Optimization:

  How to cluster customer data for campaign marketing

- Anonymous company donated Facebook analytics

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CHALLENGES
AHEAD

01 Very small

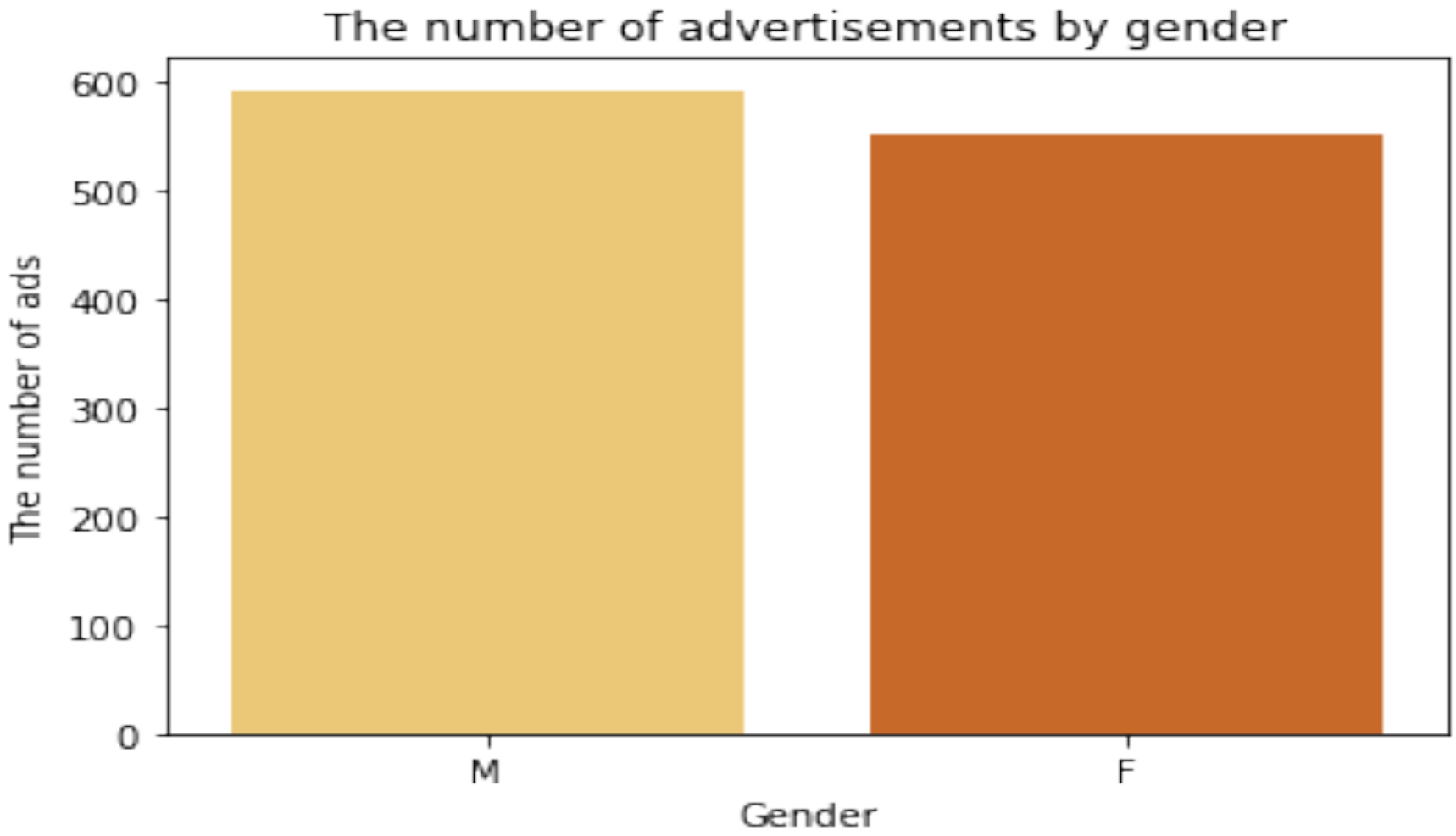
02 Minimal prior interaction with it

03 Age Ranges, not samples

03 Few features

04 Encoded Interests

Gender Distributions



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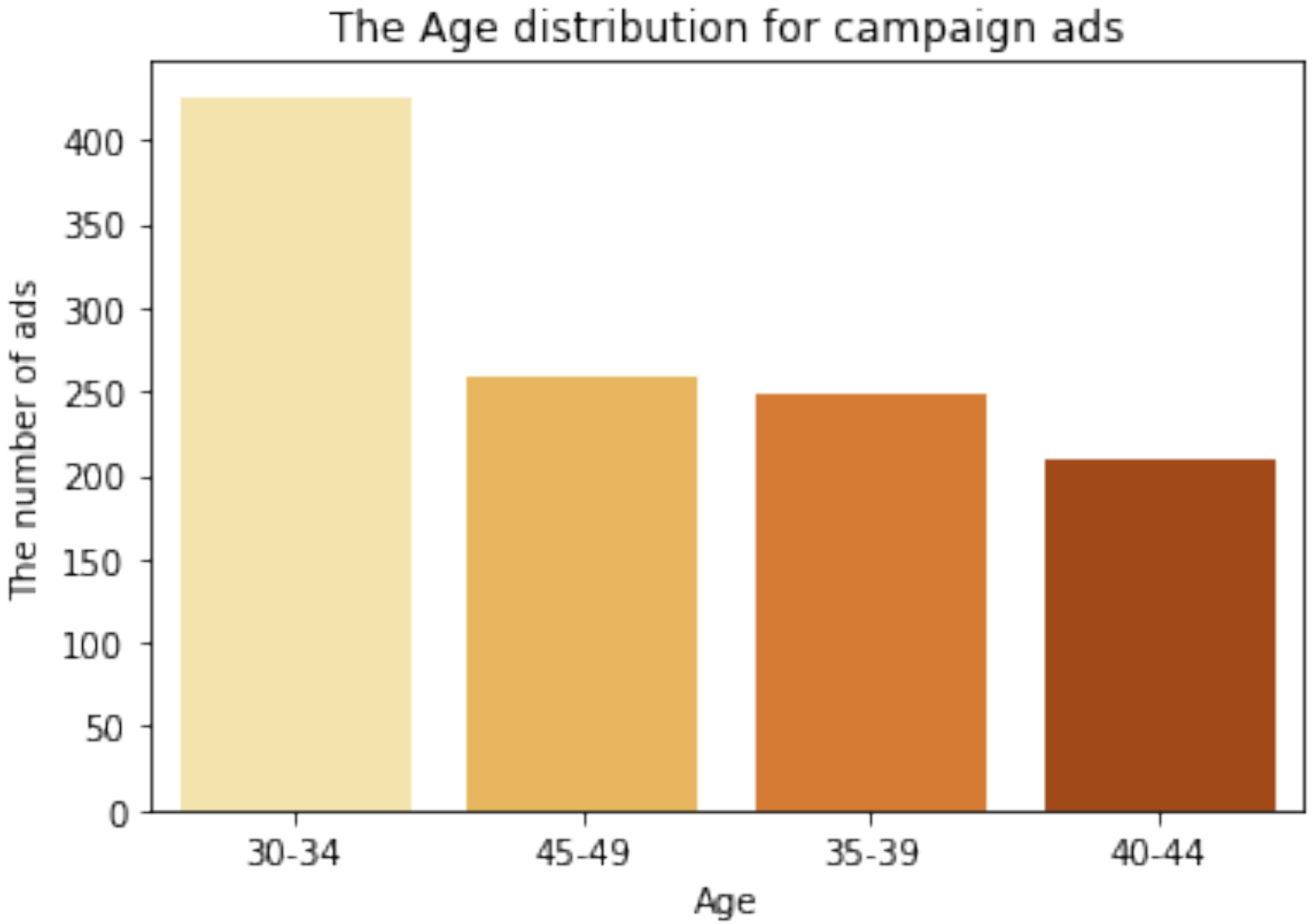
Age Distribution



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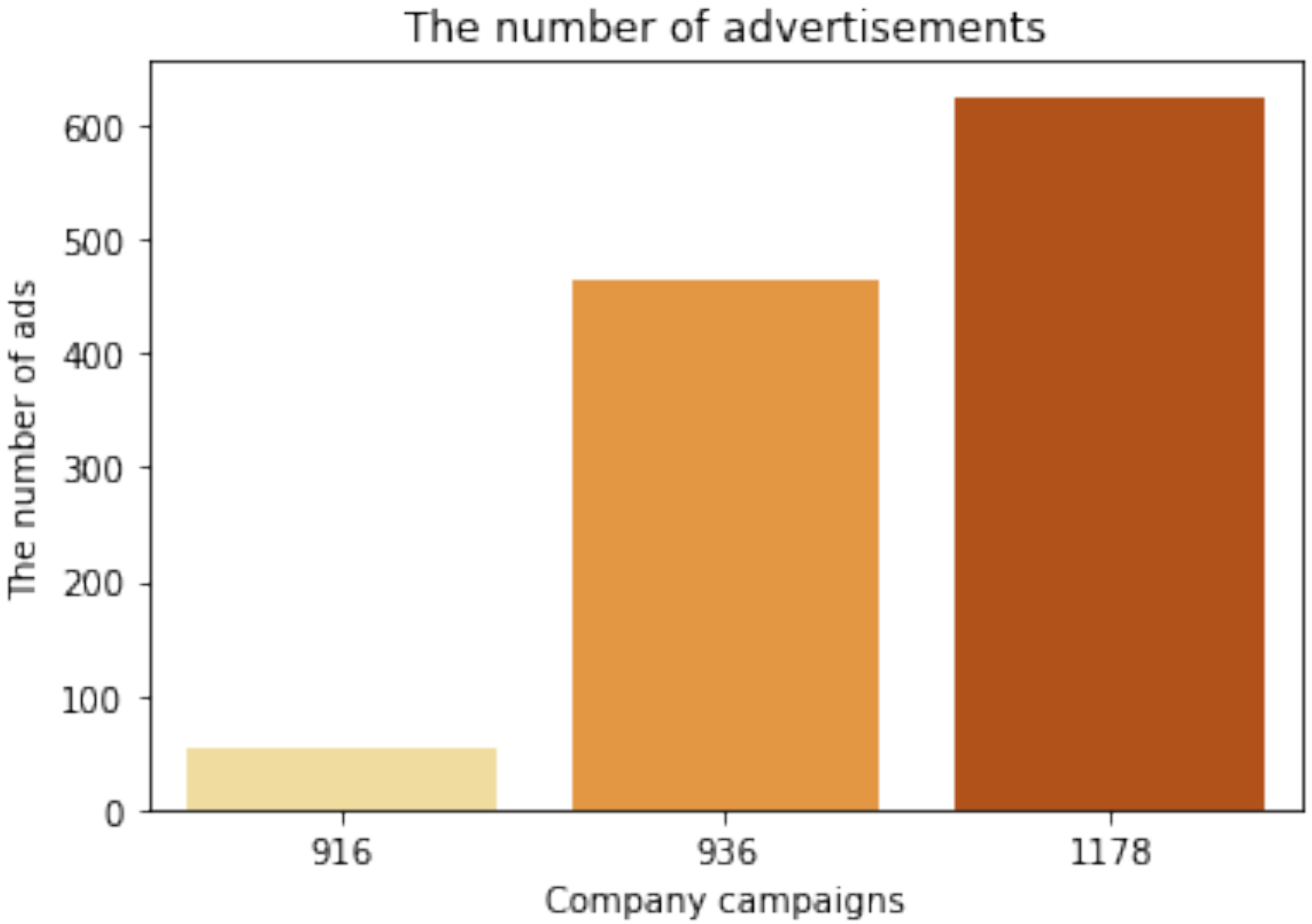
Campaign Ad Distribution



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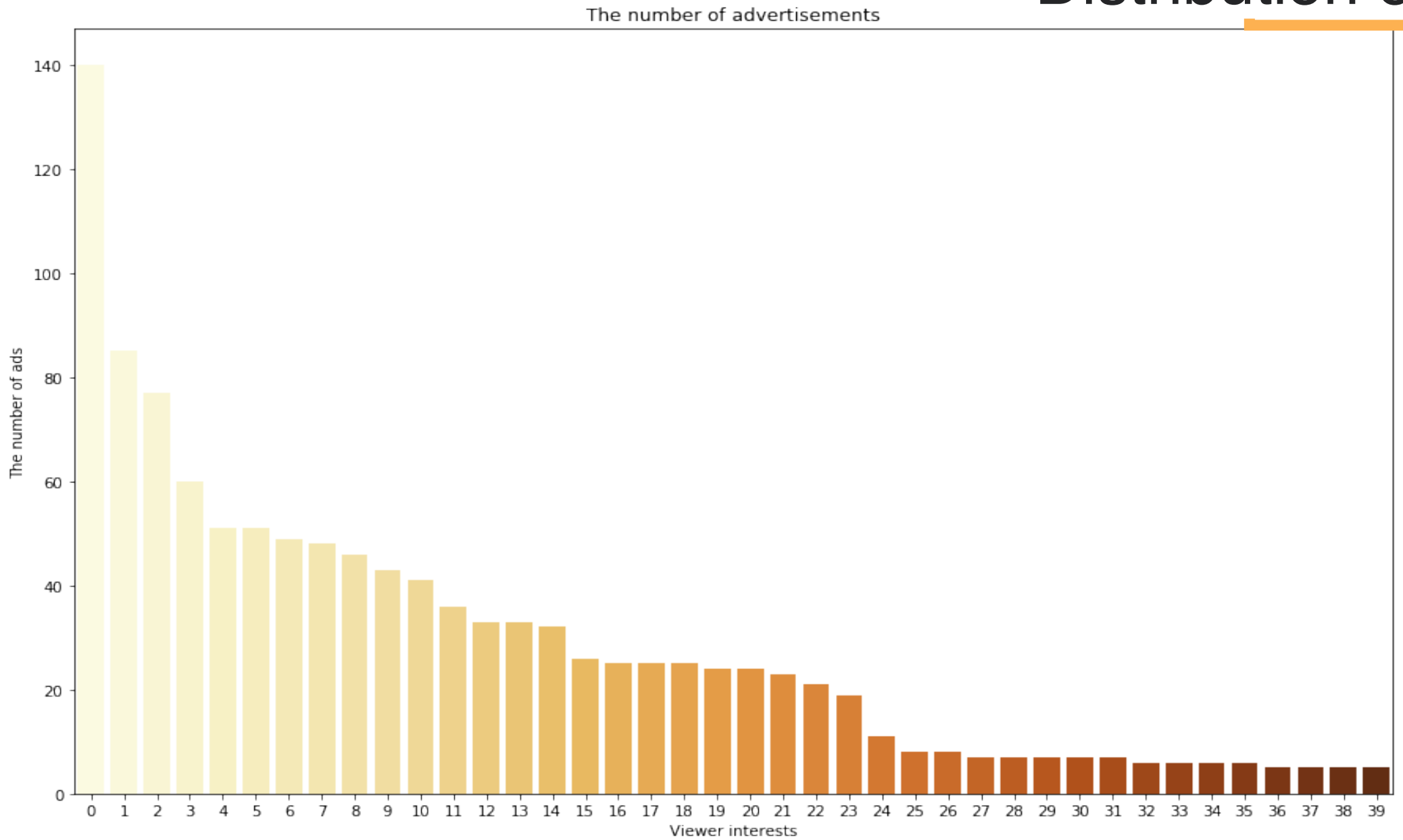
Distribution of interests



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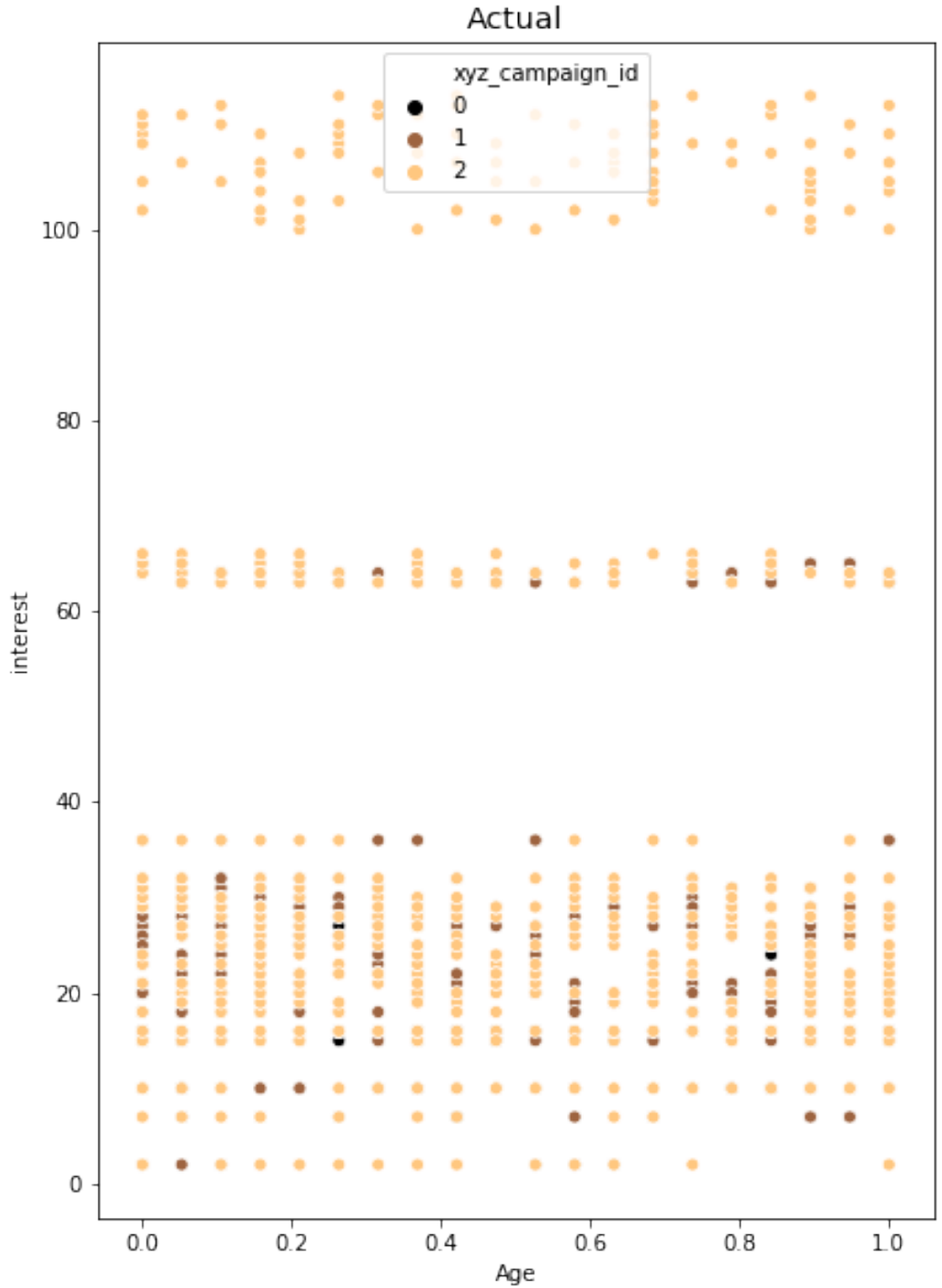

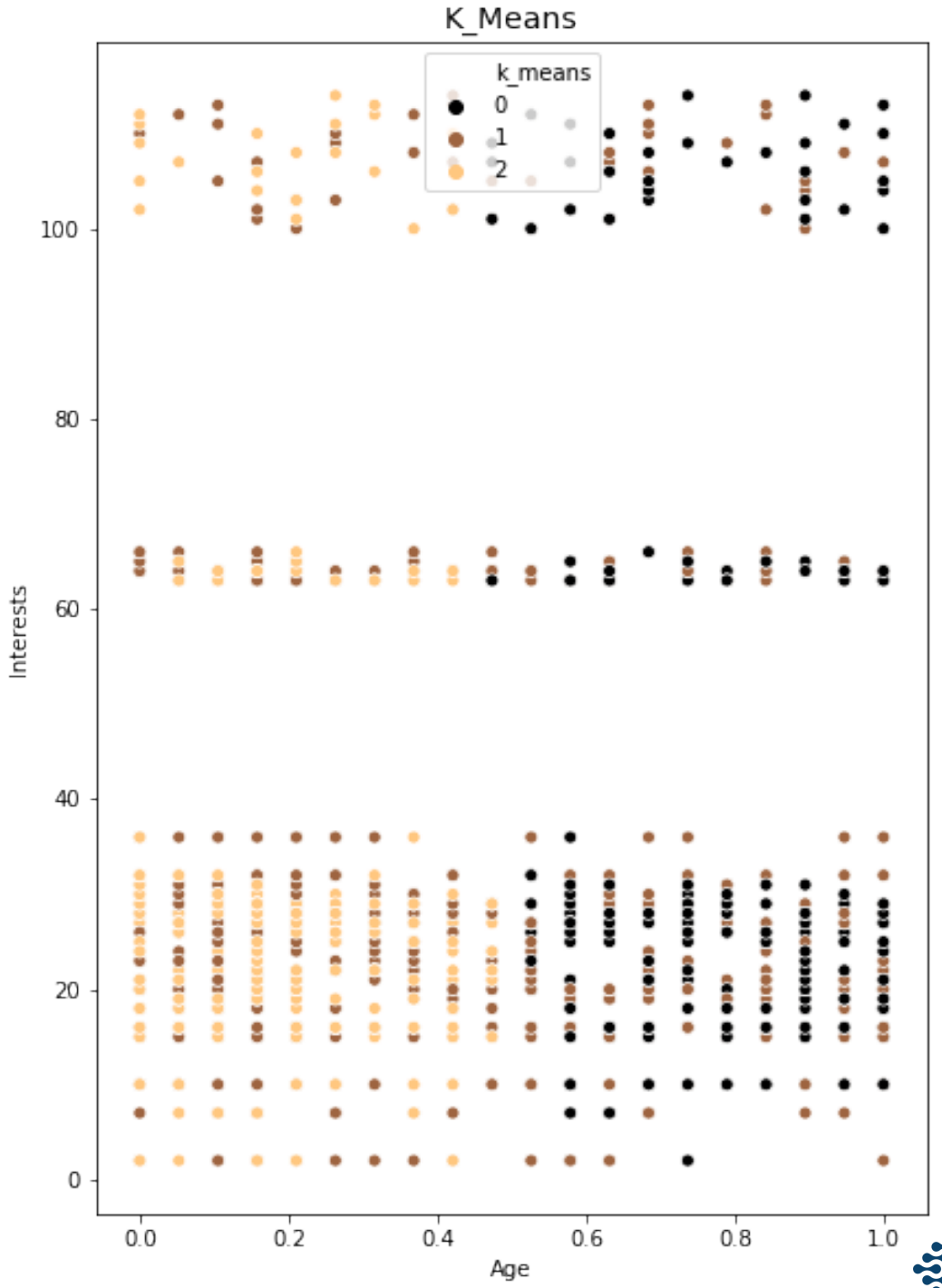

KMeans for clustering

25.3%

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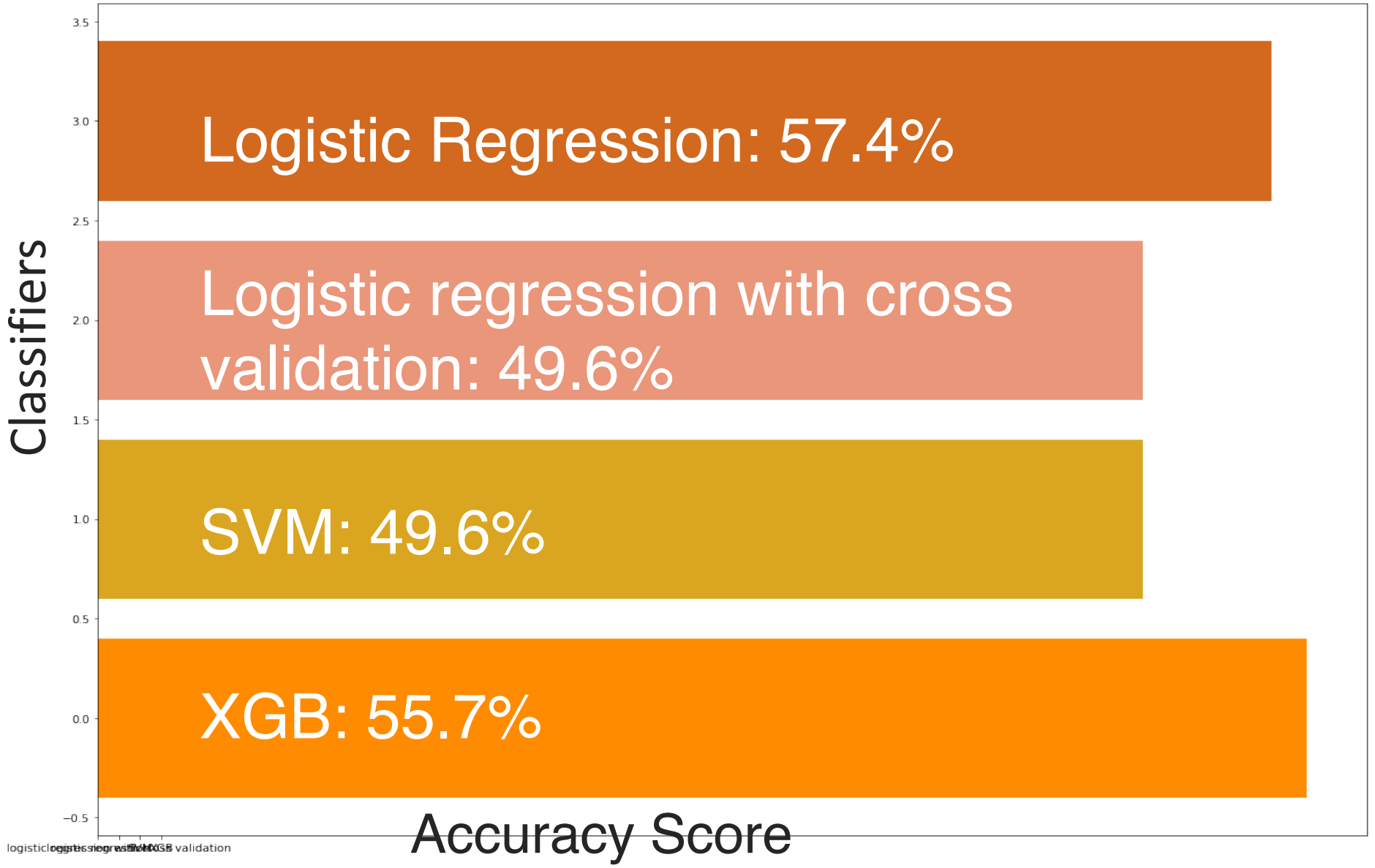
Campaign Objectives

- Brand Awareness - Impressions
- Consideration - Clicks/Total conversions
- Sale - Approved conversions

Campaign Metrics

	campaign_impressions_cost	click_through_rate	cost_per_click	conversion_rate	conversion_loss
0	0.310007	0.023399	1.324867	6.237917	0.629630
1	0.355967	0.024409	1.458352	15.810765	0.762931
2	0.271756	0.017609	1.543256	63.832741	2.875200

Can I predict a conversion?



Key Lessons

- More data
- Normalize-Preprocessing

Thank You!