

# Final Project #1: Lightning Talk

Lee Morgan  
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# Project Idea #1 - Credit Card Applications

## Problem Statement:

- Increase online applications for credit cards
- Determine what features of online ads may influence users to apply for credit cards online



## Hypothesis:

- Users will be more likely to apply when shown more ads (frequency), shown video ads, shown ads from key sites, and when exposed to “viewable” ads

# Project Idea #1 - Credit Card Applications

**Source:** Client's digital ad data

**Observation:** Impression-level

Row	Time	User_ID
1	05-03-2016-01:58:20	AMsySZaTdRd044Fb2KnJZnet_hlF
2	05-03-2016-01:13:39	AMsySZaZjhWiorQA-T_KEBddzKgK
3	05-03-2016-07:20:05	AMsySZbqdZdN8pZ372pXB4B9qWcz
4	05-03-2016-08:35:18	AMsySZZLErYbxWeY49YM9zlowwk0
5	05-03-2016-09:35:27	AMsySZYT8qGQNVOFWvU8KXnR5ZTC
6	05-03-2016-10:32:09	AMsySZaYbNJK-Ptla0RoCU5EFrJZ
7	05-03-2016-11:44:27	AMsySZbuZ0jnvEfzQ8CRfM9tGZYj
8	05-03-2016-12:22:53	AMsySZYxjKQmjtShO61EGroXGir5

## Potential Features

Ad Frequency

Ad Clicked

Ad Viewable

Campaign Type

Device (Mobile vs Desktop)

Dollars Spent on User

Exposure Recency

Format (Video/Non-video, Size)

Location (State, DMA, City, Zip)

Site (Name, URL, Category, Keyword)

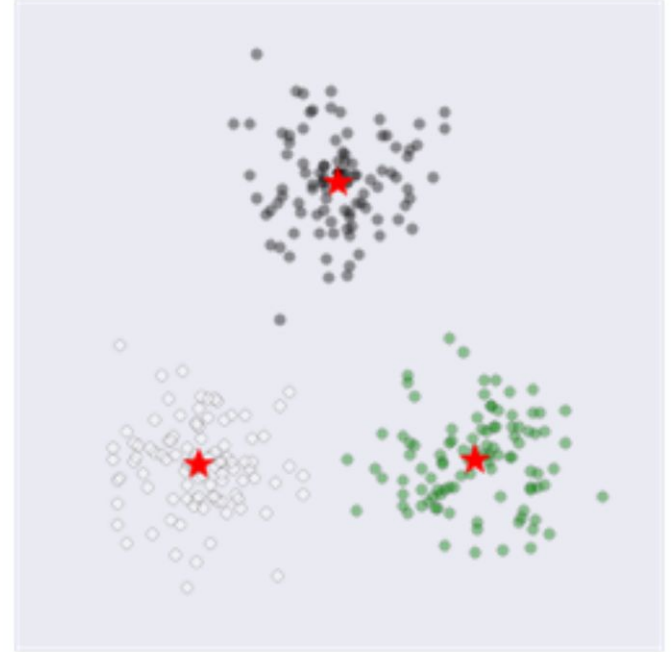
# Project Idea #2 - Account Segmentation

## Problem Statement:

- 300+ Accounts - need to develop more customized sales pitches
- Segment clients into groups based on their account details

## Hypothesis:

- We will be able to segment accounts into 3-5 clusters based mainly on vertical, sales opportunity, and product feature usage



# Project Idea #2 - Account Segmentation

**Source:** Internal CRM Data

**Observation:** Account level

Client Maturity	Tier	Vertical	Sector	Segment
Mature	1	Retail - Big Box	MCS	Direct Response
Acquisition	1	Retail - Pure Play	MCS	Brand
Mature	1	Media & Entertainment	CG&E	Brand
Growth	1	Travel - Globetrotters	IS	Direct Response
Growth	1	Automotive 1	CG&E	Brand
Growth	1	Finance - Wall Street	IS	Direct Response
Growth	1	Technology - Telecom	MCS	Direct Response
Growth	1	Food, Beverages, Restaurants	CG&E	Brand
Growth	2	Media & Entertainment	CG&E	Brand
Mature	1	Finance - Main Street	IS	Direct Response
Mature	1	Technology - Consumer Electronics	MCS	Brand
Growth	2	Pharma & OTC	IS	Brand
Growth	1	Technology - Telecom	MCS	Brand
Mature	1	Retail - Specialty	MCS	Direct Response
Growth	1	Retail - Big Box	MCS	Brand
Mature	1	Finance - Wall Street	IS	Direct Response
Growth	1	Retail - Pure Play	MCS	Direct Response
Acquisition	2	Media & Entertainment	CG&E	Brand

## Potential Features

2016 Opportunity (Total “Wallet”)

2016 Sales

Advertiser Strategy (“Segment”)

Client Maturity (Acquisition, Growth, Mature)

Client Tier

Product feature usage/adoption

Sales Channel (Direct or Agency)

Sector (higher-level aggregation of Vertical)

Vertical

# Project Idea #3 - Predict Ad Viewability

## Problem Statement:

- Not all ads that are purchased are seen, which leads to wasted spend
- Predict whether an ad will be viewed depending on various contextual factors

## Hypothesis:

- We will find that larger ads, video ads, ads on mobile devices (phone/tablet), and ads on certain sites will more likely be viewed



# Project Idea #3 - Predict Ad Viewability

**Source:** Internal data across various accounts

**Observation:** Impression-level

Date	Hour	Ad_position	Exchange	Site	Video_player_size	Device	Browser	OS	Language	State	Viewable
20170101	12	BELOW_THE_FOLD	xbid-adx	4320141746	0	COMPUTER	3	0	en	20341	1
20170101	18	ABOVE_THE_FOLD	xbid-adx	71951324849	0	COMPUTER	12	0	en	20339	0
20170101	23	UNKNOWN	xbid-adx	8788800956	0	COMPUTER	3	0	en	20339	1
20170101	12	BELOW_THE_FOLD	xbid-adx	42040928000	0	COMPUTER	3	0	pt	20339	0
20170101	14	BELOW_THE_FOLD	xbid-adx	4320141746	0	COMPUTER	3	0	en	20339	0
20170101	22	UNKNOWN	xbid-adx	8788800956	0	COMPUTER	3	0	en	20339	1
20170101	15	BELOW_THE_FOLD	xbid-adx	43738490488	0	COMPUTER	10	0	it	20339	0
20170101	22	BELOW_THE_FOLD	xbid-adx	4562738624	0	COMPUTER	6	0	en	20339	1
20170101	17	BELOW_THE_FOLD	xbid-adx	4320141746	0	COMPUTER	6	0	en	20339	0
20170101	14	UNKNOWN	xbid-adx	12551259080	0	COMPUTER	6	0	en	20339	0
20170101	18	BELOW_THE_FOLD	xbid-adx	38260619977	0	COMPUTER	0	0	en	20339	0
20170101	14	ABOVE_THE_FOLD	xbid-adx	34508931928	0	COMPUTER	3	0	en	20339	0
20170101	12	BELOW_THE_FOLD	xbid-adx	6131626591	0	COMPUTER	3	0	en	20339	0
20170101	17	BELOW_THE_FOLD	xbid-adx	2328226494	0	COMPUTER	21	0	en	20339	0
20170101	21	UNKNOWN	xbid-adx	18097054186	0	COMPUTER	3	0	en	0	0
20170101	1	BELOW_THE_FOLD	xbid-adx	38260619977	0	COMPUTER	3	0	en	20339	1
20170101	23	BELOW_THE_FOLD	xbid-adx	10520533114	0	COMPUTER	6	0	en	20343	0
20170101	14	UNKNOWN	xbid-adx	8788800956	0	COMPUTER	3	0	en	20339	0
20170101	23	BELOW_THE_FOLD	xbid-adx	18388895270	0	COMPUTER	3	0	en	20339	0
20170101	15	BELOW_THE_FOLD	xbid-adx	71951324849	0	COMPUTER	3	0	en	20339	0

## Potential Features

Browser / OS

Creative Size

Declared Ad Position

Device Type (Phone, Tablet, Desktop)

Exchange Source

Language

Location (State, DMA, City, Zip)

Time of Day

Video vs Non-Video

Thank You!