Starbucks Marketing Plan Proposal

Data Science Capstone

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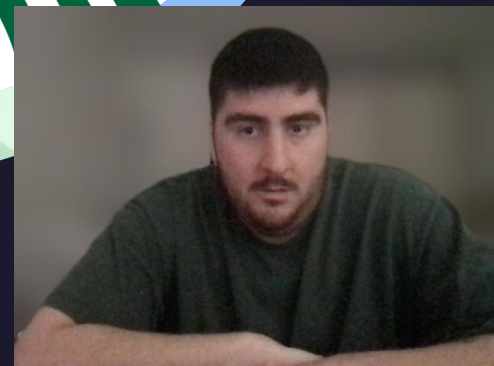

Plan of Attack

- I want to see if it would be possible to create a model that predicts with good accuracy how likely an event takes place by a customer, i.e. “transaction, offer completed, etc.” based on the provided demographic information that is presented through the available data.
- I will show the basic headers of each of the files in the next slide, but ultimately, we will have to identify a way to combine the data in the given info and concatenate it into one final dataset.
- I think the first step that will need to do is to sift through the files to make sure there are not additional customer records between the profile file and transcript file.

Data Summary

Profile Data Set

```
profile.head()
```

	gender	age	id	became_member_on	income
0	None	118	14980	20170212	NaN
1	F	55	12990	20170715	112000.0
2	None	118	14643	20180712	NaN
3	F	75	0	20170509	100000.0
4	None	118	1	20170804	NaN

Transcript Data Set

```
transcript.head()
```

	person	event	value	time
0	0	offer received	{'offer id': '9b98b8c7a33c4b65b9aebfe6a799e6d9'}	0
1	1	offer received	{'offer id': '0b1e1539f2cc45b7b9fa7c272da2e1d7'}	0
2	2	offer received	{'offer id': '2906b810c7d4411798c6938adc9daaa5'}	0
3	3	offer received	{'offer id': 'fafdcd668e3743c1bb461111dcafc2a4'}	0
4	4	offer received	{'offer id': '4d5c57ea9a6940dd891ad53e9dbe8da0'}	0

Portfolio Data Set

```
portfolio.head()
```

	reward	channels	difficulty	duration	offer_type	id
0	10	[email, mobile, social]	10	7	bogo	ae264e3637204a6fb9bb56bc8210ddfd
1	10	[web, email, mobile, social]	10	5	bogo	4d5c57ea9a6940dd891ad53e9dbe8da0
2	0	[web, email, mobile]	0	4	informational	3f207df678b143eea3cee63160fa8bed
3	5	[web, email, mobile]	5	7	bogo	9b98b8c7a33c4b65b9aebfe6a799e6d9
4	5	[web, email]	20	10	discount	0b1e1539f2cc45b7b9fa7c272da2e1d7

Objective

- I will build a machine learning model that will be able to predict whether a customer will respond to a purchase offer sent by Starbucks through their mobile app.
- Also want to be able to determine if we can get a stratified expected level of response based on previous user actions like offer received, offer viewed, transaction, offer completed, etc.
- From then we will be able to recommend a targeted approach so that Starbucks can send the appropriate offers to a a more concise targeted audience and from that we will be able to elicit the maximum possible responses which will ultimately lead to more revenue.
- Using the data from Starbucks we will arrive to a singular dataset that we can train the model on and refine it from there. There may be some problems that get run into a long the way, but always be refined along the way.