



# Python UMD Alumni Project

## Team 12

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# Introduction

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## Mission Statements:

- To find out the relationship between different variables and first time attendees and major gift prospect attendees.
- How can we get more first time attendees to attend our events?
- How can we get more major gift prospects to attend our events?

## Mission Objectives:

- Which groups of event have the most attendees?
- Does location and popularity influence the attendees of these two groups?
- Are online events more attractive than in-person events?
- What's the average age of attendees at events per location?
- Which type of activity of a event can attract more attendees?
- Is the number of attendees affected by the time of the event?

# Overall Methods

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- Statistics: `pandas.describe`
- Sort values descending order `str.split`
- Histograms, bar charts, pie charts, clustering, hierarchical tree map, wordcloud.

## Which groups have the most attendees?

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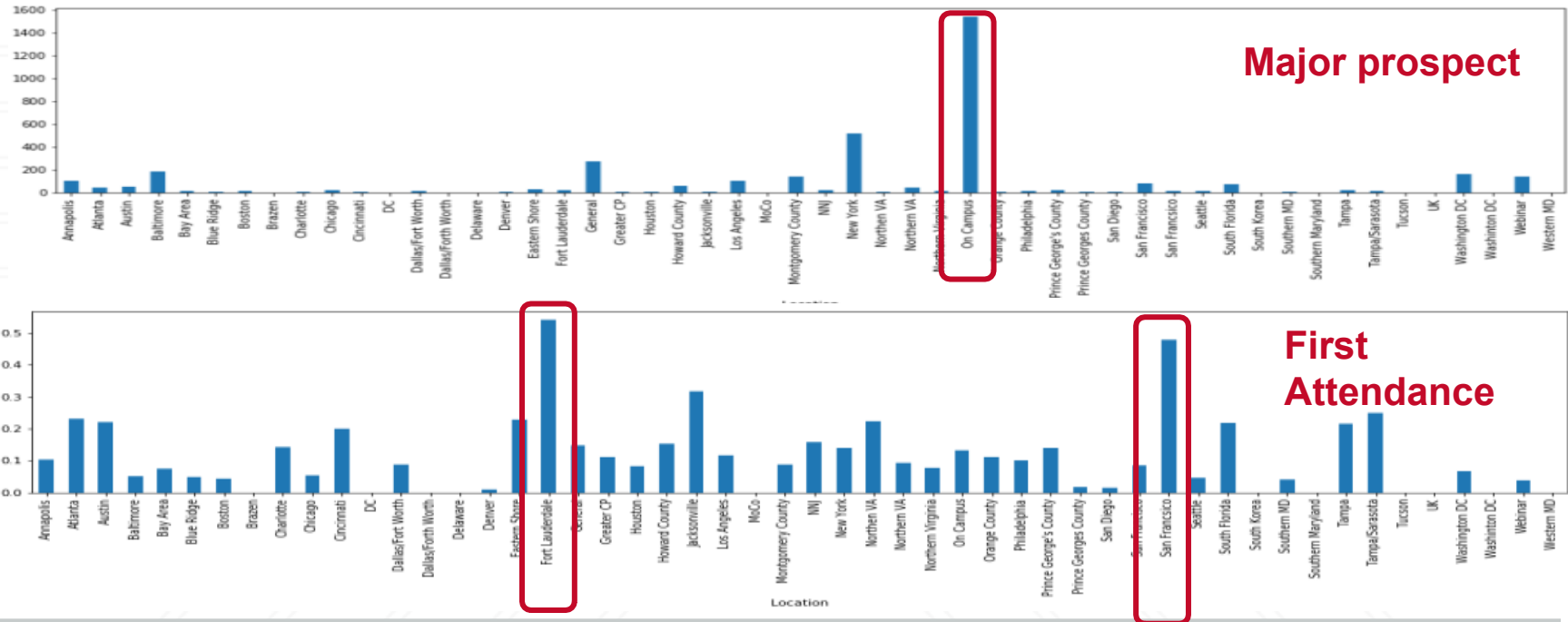
Group Category	Major Prospects
Social-General	995
Athletics- General	814
ProDev-General	388
Stewardship- General	348
Stewardship- Membership	185

Group Category	First Time Attendees
Social-General	1557
Athletics- General	1516
Social-Students	1486
ProDev-General	1452
Stewardship- Membership	232



# The relation between location and attendance

Methods: groupby, bar charts



# How can we get more first time attendees to attend our events?



# How can we get more major gift prospects to attend our events?

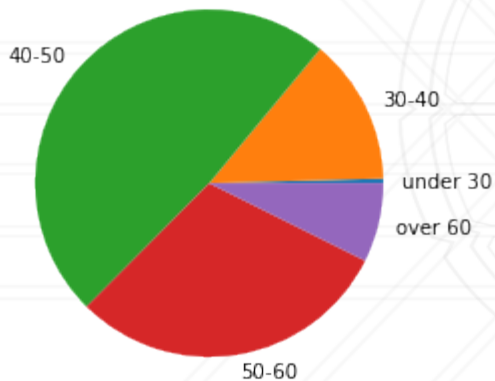




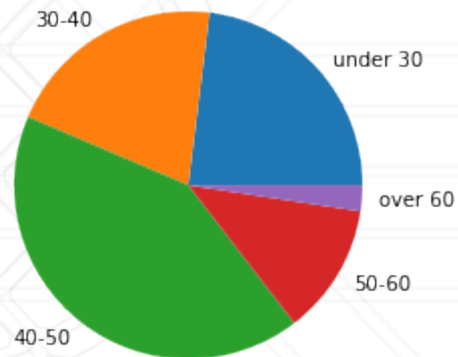
# What was the average age at these events?

Reference: [https://matplotlib.org/stable/gallery/pie\\_and\\_polar\\_charts/pie\\_features.html](https://matplotlib.org/stable/gallery/pie_and_polar_charts/pie_features.html)

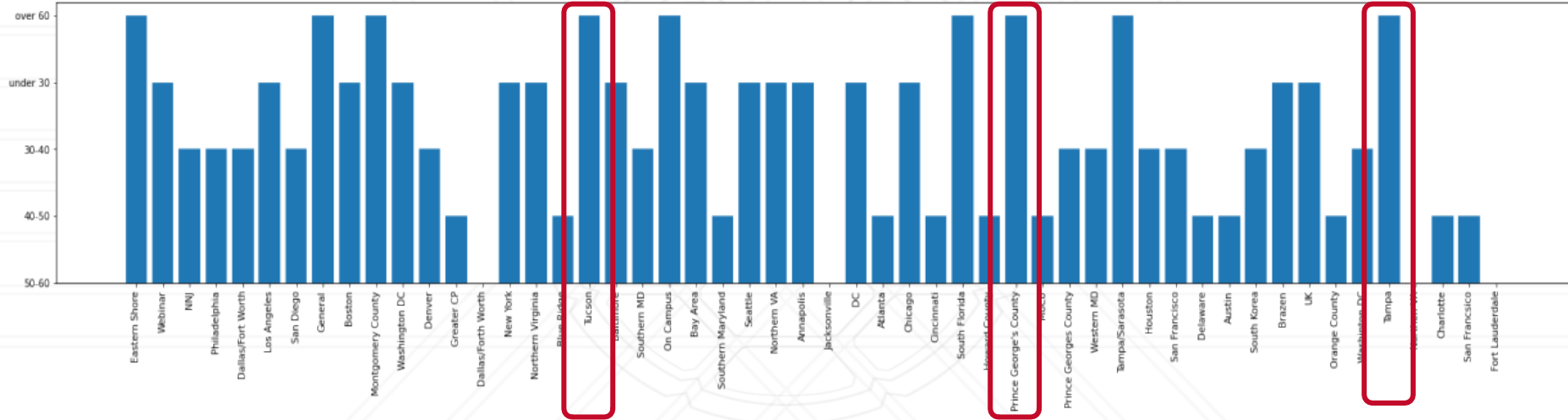
Major Prospects per Age Group



First Time Attendees per Age Group

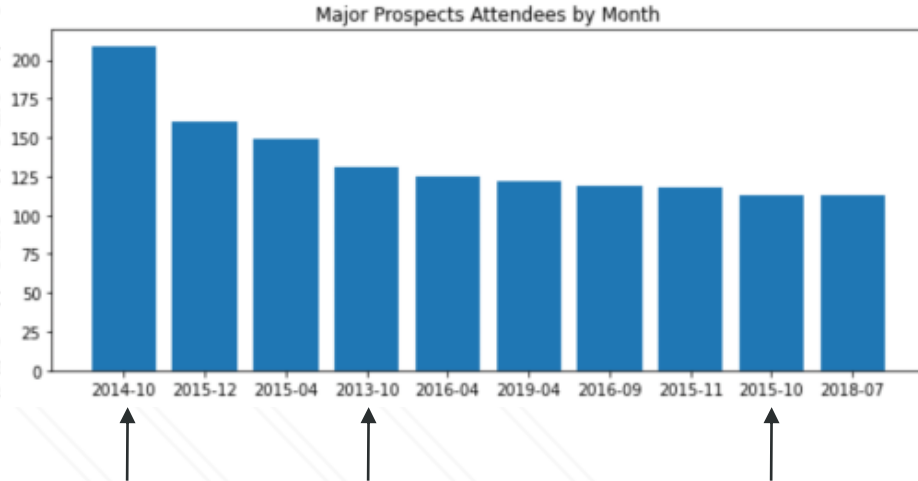
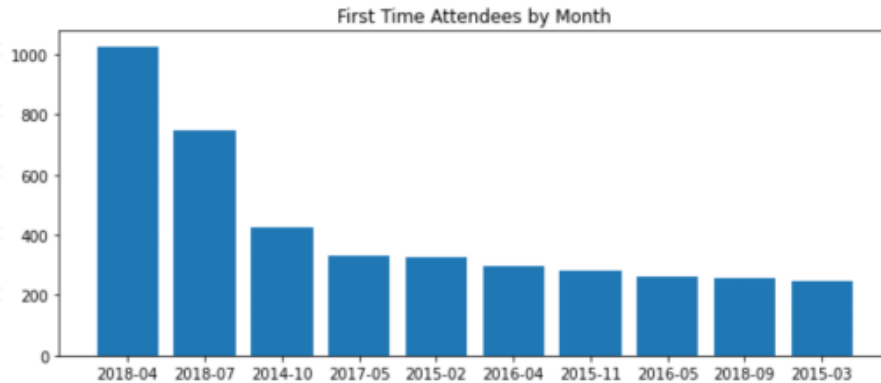


# What are the age groups at each Location?



# Does the number of attendees affected by the time of the event?

Methods: groupby, bar plot



# Findings

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- Online events and events on UMD campus are the most popular with the most participants and first time attendees
- On campus events can bring the most major gift prospects.
- Events related with Homecoming, Awards, Virtual have the most attendees.
- Both First time and Major gift prospects attendees has higher proportion in under 40-50 age group.
- Number of attendees in two groups are not highly correlated with time of a year.

# Recommendations

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- Make more events in college park and online based on participants
- More events gala and award events based on participants
- Market to over 60 age group for more major prospects and to under 30 group for the first time attendees.
- To hold events at the locations that have more attendees in this age group(Tempa, Tucson, Prince George's County...)
- More social events since more people enjoy based on participants

# Future Work

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- Market to over 60 age groups for more major prospects and to under 30 groups for the first time attendees since they take the smallest attendees proportion.

# Thank You



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