

Project Title

To Infinity and Beyond: An Analysis of Orlando Theme Park Injuries

Team Members:

- Jason Markham
- Jacquelynn Whitehurst
- Nicholas Truong
- Mahmoud Farhat
- Victor Herrera

Project Description/Outline:

An analysis of guest's injury history over the last 20 years in Orlando's two largest theme parks, Disney and Universal

Research questions to answer:

- Worst ride/number of injuries per ride
- Percentage of pre-existing conditions vs. no pre-existing
- Type of injury(fall/fracture/dizzy/etc.)
- Age and gender distribution of injuries
- Weather conditions on day of injury
- Worst/greatest number of injuries by theme park

Datasets to be used:

- <https://www.kaggle.com/datasets/aaronjones32/universalwdw-incident-data-20022022/code>
- Map data api
- Weather data api
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Visualizations:

- Bar chart showing #injury vs. rides
- Histogram of ages
- Scatter plot injury vs. age (correlation)
- Pie chart for gender
- Box plot
- Pie chart for injury frequency per ride

Rough Breakdown of Tasks:

- Clean data (ride name and description columns)
- Separate age_gender column into two columns
- Collect and merge weather api data(temperature and condition(rainy, clear, etc))
- Collect and merge map data
- Separate pre-existing conditions
- Create charts
- Create slides for presentation
- Create breakout/classification of injuries(cardiac/dizzy/laceration/fracture/etc.)

Completed:

- Total rides per company(uni vs. dis)
- Number rides per park (horiz. bar)
- Frequency percentage for all parks(pie)
- Top 5 ride most injury(both parks)
- Top 10 most injuries rides(one for each park)

To do (this week):

- Histogram showing injury by age group(refer to Kaggle) - Victor
- Weather conditions on day of injury - Jacquelynn
- Heat map showing injury by ride - Jason
- Separate pre-existing conditions - Nicholas
- Create breakout/classification of injuries(cardiac/dizzy/laceration/fracture/etc.)