

ANALYSIS FOR PARKWELL

DU FINTECH BOOTCAMP FINAL PROJECT

AUSTIN VANCAMP

DAN POREDA

GRAHAM JOHNSTONE

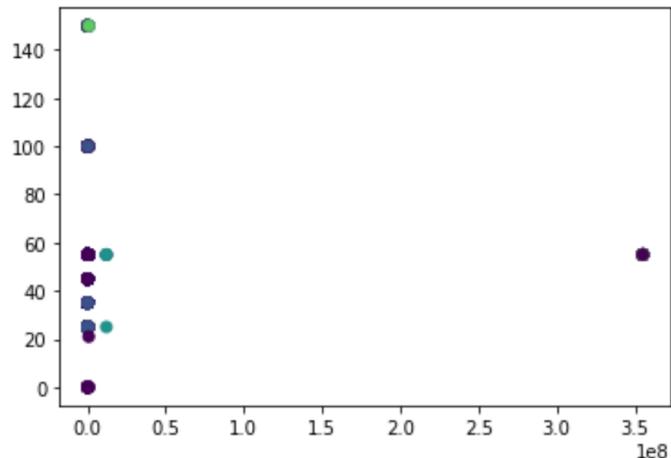
MEGHAN COLIP

EXECUTIVE SUMMARY

WE WERE FORTUNATE TO HAVE THE OPPORTUNITY TO USE REAL WORLD DATA AND WORK ON A PROJECT THAT DIRECTLY BENEFITS A LOCAL COMPANY. PARKWELL OWNS MANY PARKING LOTS THROUGHOUT DENVER AND BOULDER. THEY WANTED TO FIND OUT IF THEIR RATIO OF PAID:UNPAID TICKETS IS AFFECTED BY VARIATION IN TICKET PRICE. ULTIMATELY, WE WERE ABLE TO DELIVER INFORMATION THAT CAN BE USED BY PARKWELL TO BETTER MAKE STAFFING AND TICKET PRICE DECISIONS

APPROACH

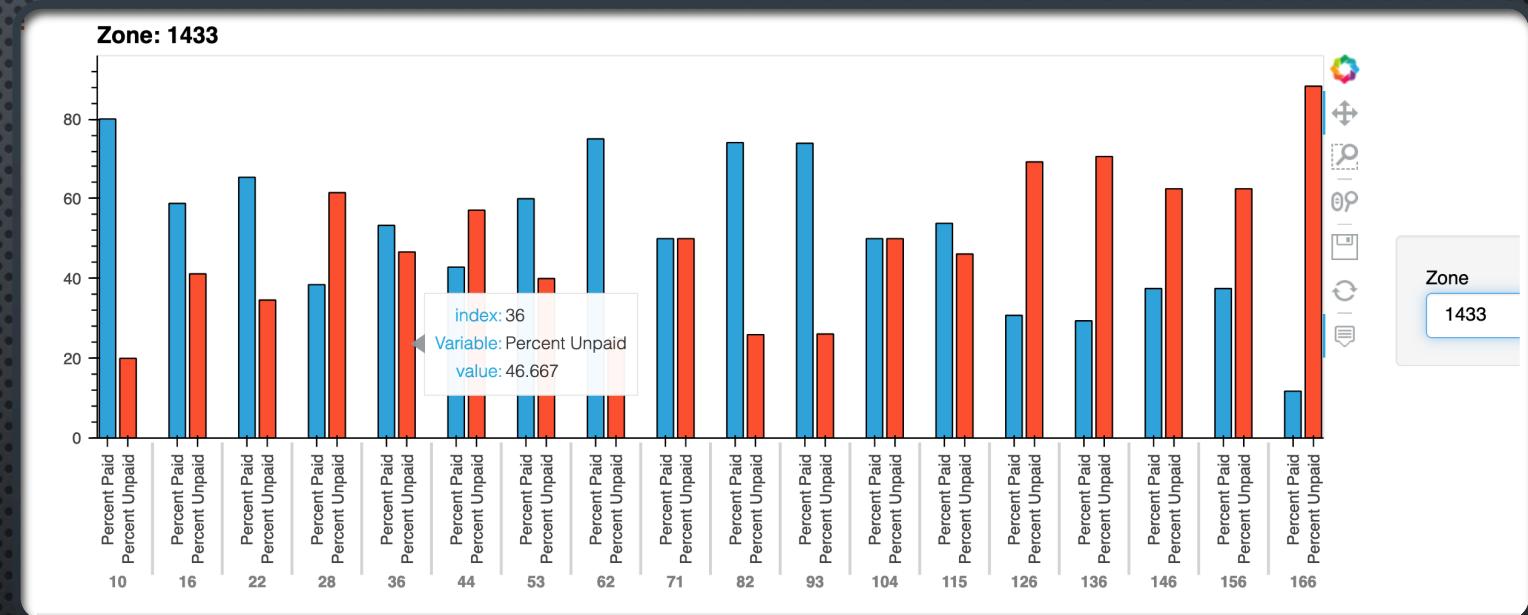
```
[187]: <matplotlib.collections.PathCollection at 0x7fd3a89a4490>
```



- DIVIDE AND CONQUER
- BE OPEN TO CHANGES THAT NEED TO BE MADE ALONG THE WAY
- MACHINE LEARNING (SUPERVISED AND UNSUPERVISED) PROVED TO NOT BE USEFUL FOR OUR DATA SET DUE TO A LACK OF VARIABILITY WITHIN THE DATA
- HV PLOTS, PERCENTAGES, AND TABLES PROVIDED VISUAL REPRESENTATION OF DATA

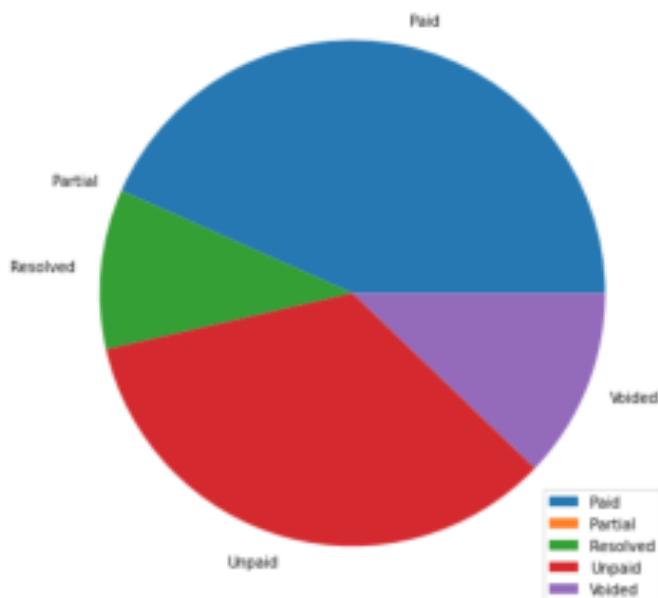
RESULTS AND CONCLUSIONS

- ACROSS THE BOARD % PAID IS GREATER THAN % UNPAID
- USER HAS THE ABILITY TO FILTER INFORMATION BY ZONE TO SEE
 - A) HOW MANY TICKETS WERE ISSUED EACH MONTH
 - B) HOW MANY TICKETS WERE PAID OR UNPAID



```
[179]: status_dummies = pd.get_dummies(concat_df["Status"])
df_pie = status_dummies.sum()
df_pie = pd.DataFrame(df_pie, columns=[" "])
df_pie.plot.pie(figsize=(8,8), subplots=True, title="Total Ticket Outcomes")

[179]: array([<AxesSubplot:ylabel=' '>], dtype=object)
```



NEXT STEPS

- USE DATA ANALYSIS TO MAKE BETTER DECISIONS SUCH AS:
 - CAN WE CHANGE THE PRICE AND COMPARE IT TO WHAT WE HAVE?
 - ARE THERE MORE LOTS THAT ARE MORE PROFITABLE THAN OTHERS?
 - IS ADDING MORE/LESS LOTS FINANCIALLY FEASIBLE
- APPLY ANALYSIS TO OTHER ASPECTS OF THE DATA SUCH AS:
 - CAR MODEL, OFFICER WRITING TICKETS, TICKET PRICE