# Routine Detection

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# Approach
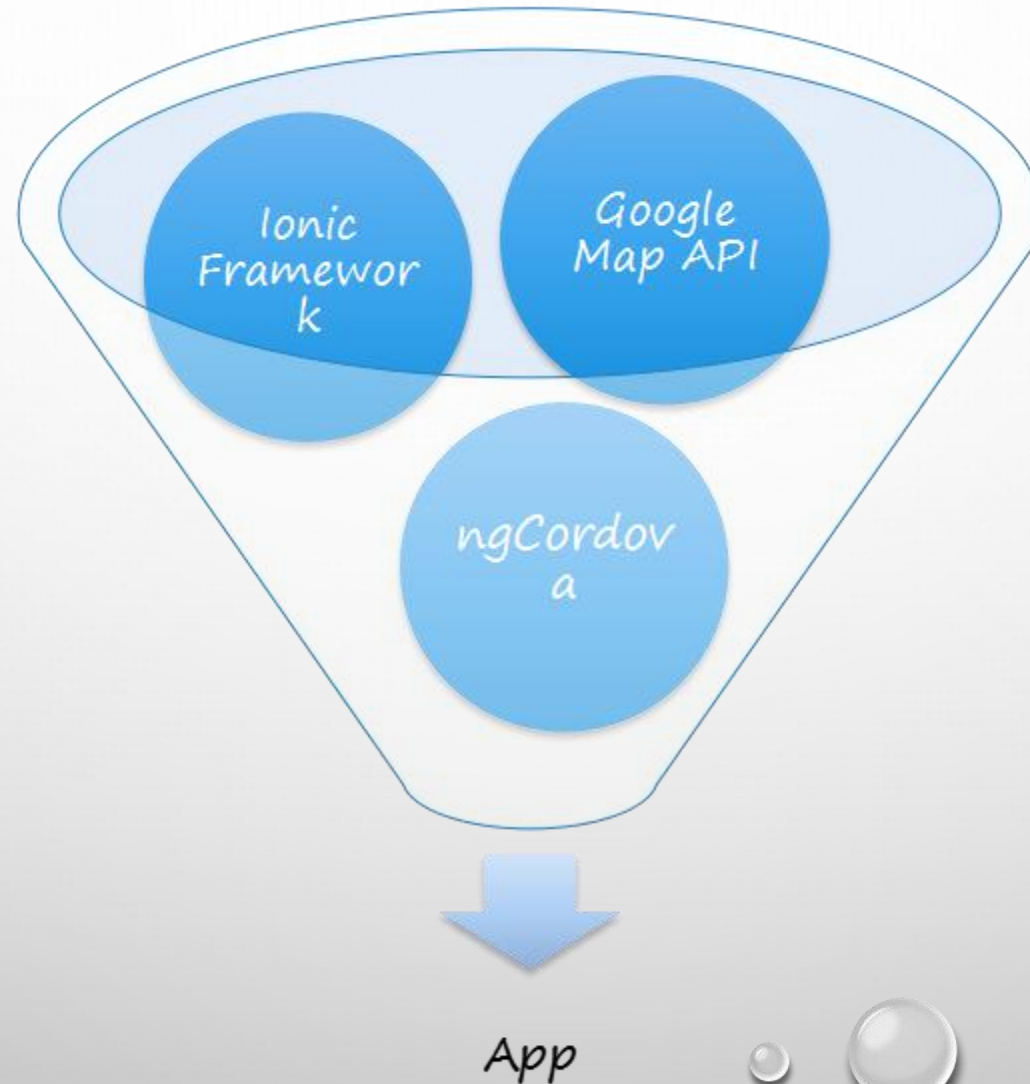
Collect Geolocation as a data set
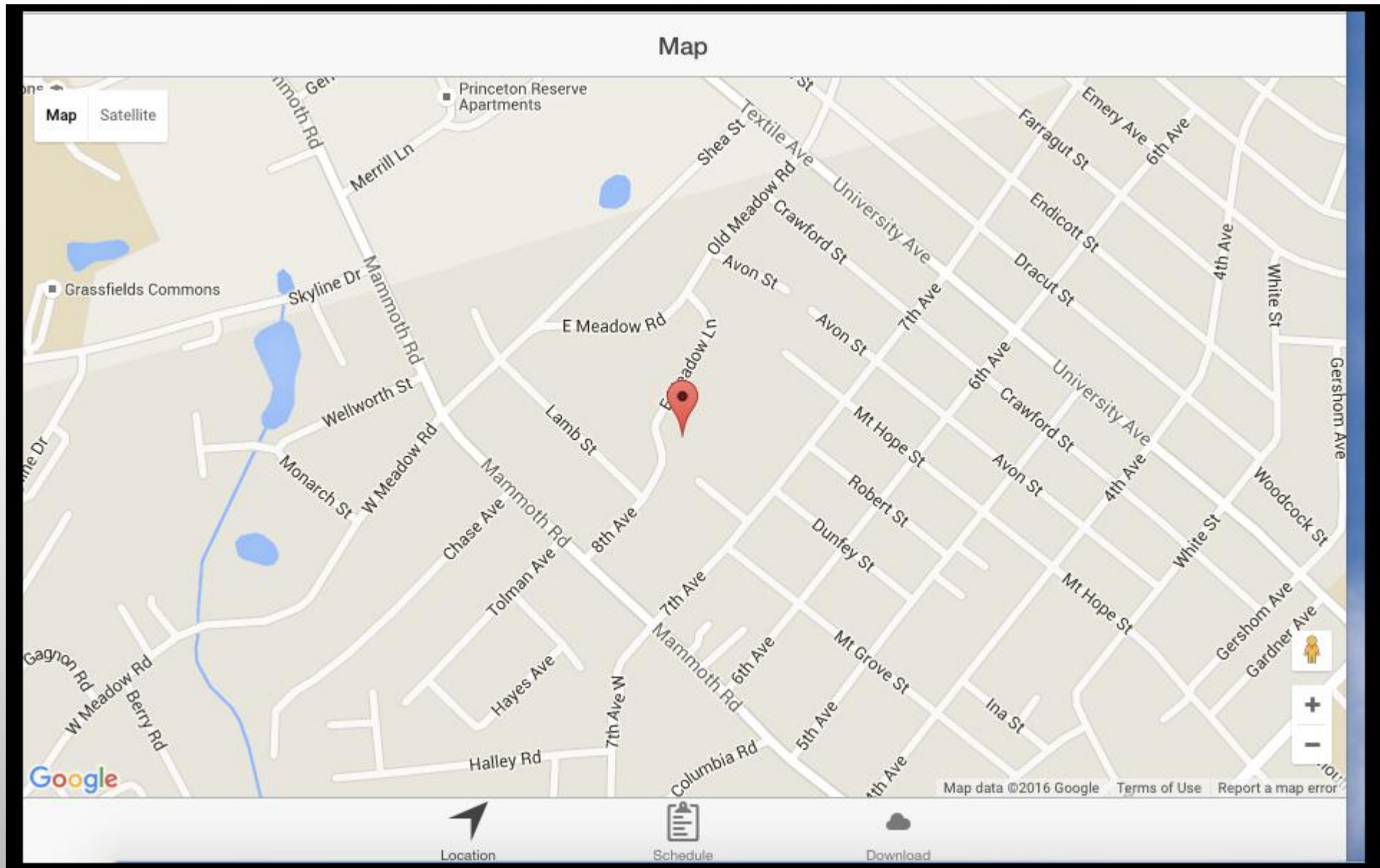
Build a heat map

Analyze the map by graph algorithm

# What we used in this app

# Video Demo

# Data Analysis
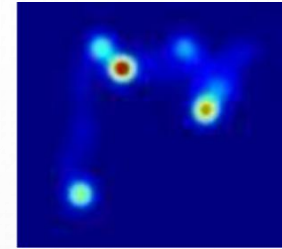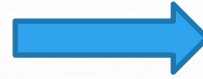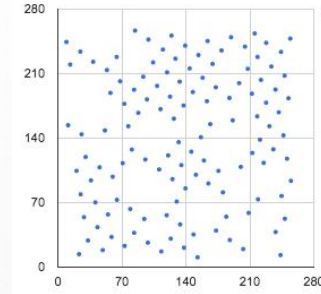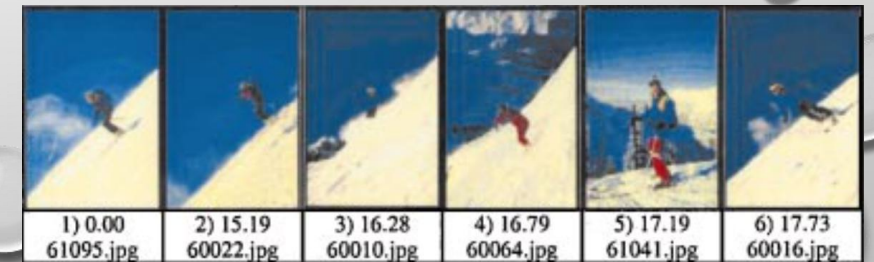
**Heat Map Generation**



**Image Similarity**

- Histogram/Texture/Color
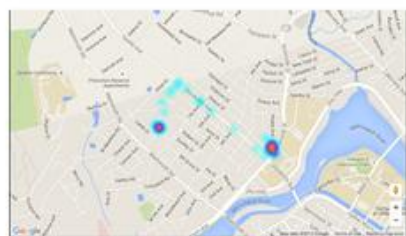- Euclidean distance
- Earth's Mover Distance(EMD)

**Abnormal Detection**



| 1) 0.00 61095.jpg | 2) 15.19 60022.jpg | 3) 16.28 60010.jpg | 4) 16.79 60064.jpg | 5) 17.19 61041.jpg | 6) 17.73 60016.jpg |

# Result
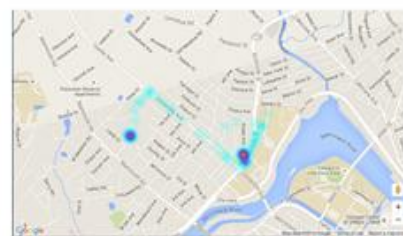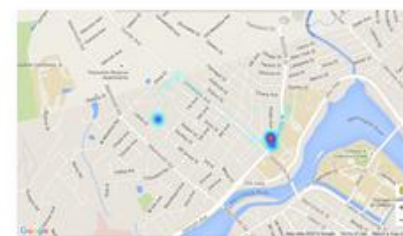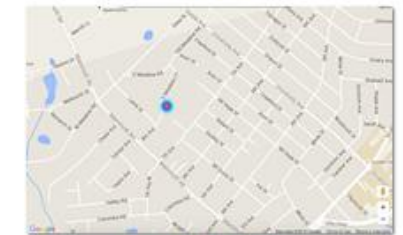


| day0 | day1 | day2 | day3 | day4 | day5 | day6 | day7 | day8 |
|---|---|---|---|---|---|---|---|---|
| 12.1730 | 10.8021 | 8.0703 | 10.9072 | 8.2338 | 8.5305 | 9.0507 | 8.6104 | 36.9019 |

# Conclusion

- Lack of data set

- upload the data into a server

- Heat Map's specific feature

- Large dataset training

# Thank you