Better Hyde Park uChicago

CHB Project

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Introduction

Background:
Frequent university security alerts
Frequent crime reports

Goal:
Develop a user interface for residents in Hyde Park
Improve their safety during daily commute
Find the safest and shortest route to travel around

2017 Data

499 THEFT

214 ASSAULT

96 VANDALISM

89 BURGLARY

73 ROBBERY

Procedures

Build a database to identify the dangerous areas

- ❏ Crime data

Design an algorithm to select the best route

- ❏ Google map API
- ❏ Public transportation in Hyde Park

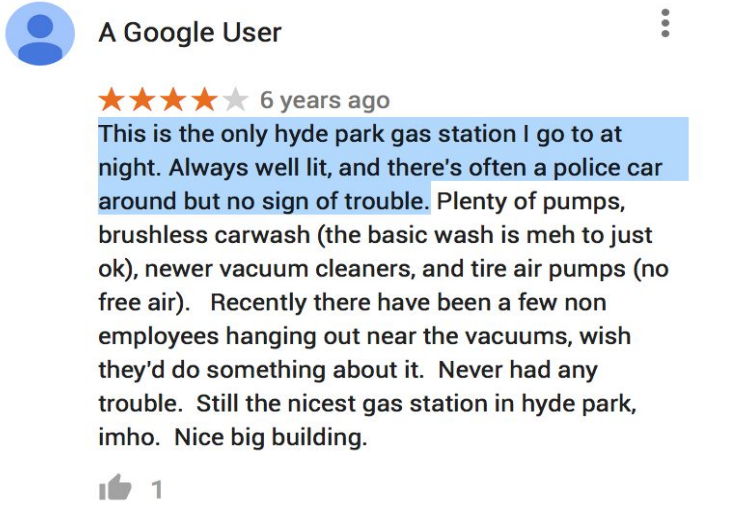
Create a website

- ❏ Present data visualizations on Hyde Park crime data
- ❏ Visualize the dangerous streets and/or blocks on the map
- ❏ Recommend the routes with lowest crime records

Data

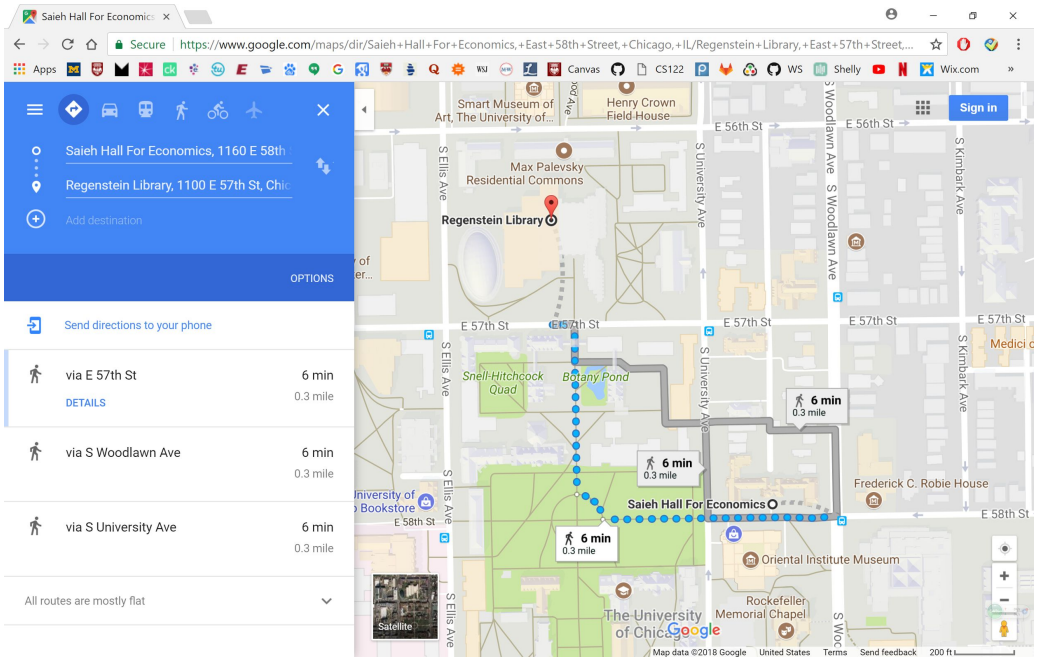
Historical crime data collection: date, time, location, and instance

- **Uchicago security alerts:** https://safety-security.uchicago.edu/services/security_alerts/
- **Crime reports in Chicago:** https://data.cityofchicago.org/
- **Trulia - Crime Data in Hyde Park** https://www.trulia.com/real_estate/Hyde_Park-Chicago/2918/crime/
- **Reviews and/or comments on Google map:**



Data

Google Map Direction API:
the routes, the geolocation, etc.



Public transportation system at Hyde Park and UC campus:
https://safety-security.uchicago.edu/services/university_shuttles/
https://safety-security.uchicago.edu/services/cta_buses/

Timeline

1.22 - 1.30: Datasets	Gather, clean, and merge datasets
1.31 - 2.08: Algorithms	Design algorithms that assign “danger weights” to each location
2.09 - 2.18: Implementation	Implement algorithms to choose the safest route Combine safe route with the data from the Google Map API Add public transportation in the route choice
2.19 - 3.05: Website	Learning the UI technologies, including JAVAscript and HTML Website design and presentation Google map API integration
3.05 -3.15	Test and improvement

Challenges and Questions

- The use of Google Map API
- Present results on the map
- Optimize user experience