

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:**



A Google User



★★★★★ 6 years ago

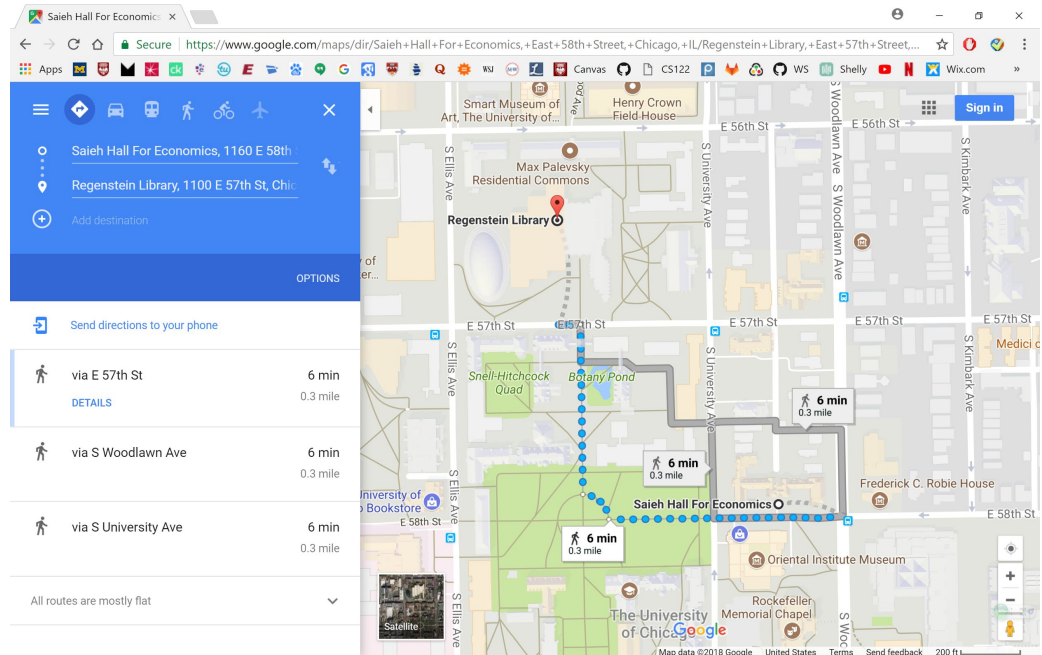
This is the only hyde park gas station I go to at night. Always well lit, and there's often a police car around but no sign of trouble. Plenty of pumps, brushless carwash (the basic wash is meh to just ok), newer vacuum cleaners, and tire air pumps (no free air). Recently there have been a few non employees hanging out near the vacuums, wish they'd do something about it. Never had any trouble. Still the nicest gas station in hyde park, imho. Nice big building.



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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

