

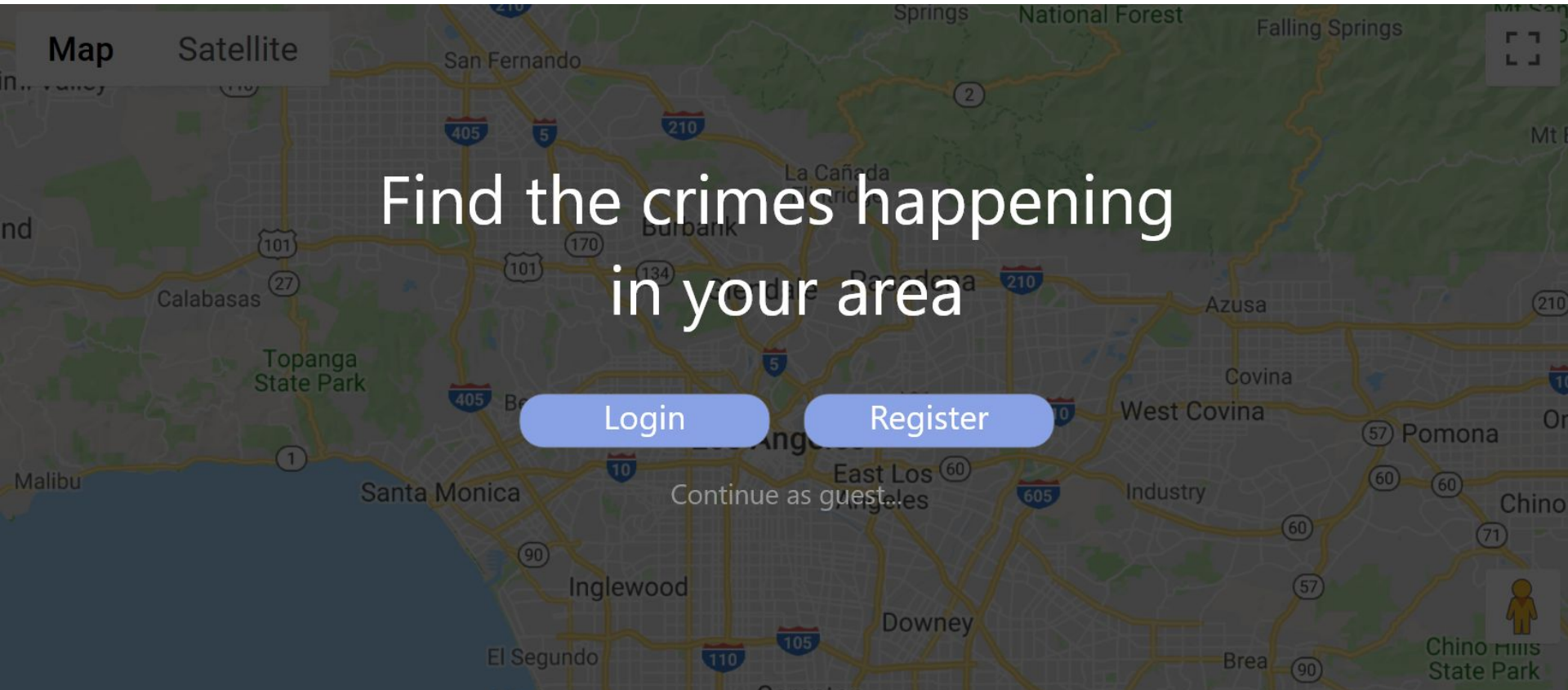


CrimeMaps

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What is CrimeMaps?



Find the crimes happening
in your area

Login

Register

Continue as guest

Main Functionalities

- Geocoding
- Heatmaps
- Crime visualization
- Live Filter Updates

How it works (Database+Backend)

- Finding Data on Crimes
 - City of Los Angeles Database
- MySQL + JDBC
- Python + Pandas
- Cleaning the Database

How it works (Frontend, APIs)

- Mock-Ups
- Geocoding/Places API
- Heatmap API
 - Marker Cluster Plug-In
- Filters

How it works (Multithreading + Networking)

- Multi-User “Room”
 - Sharable search results
- Live Stream Results
- Each User is a thread on the Socket
- Results are forwarded to each User

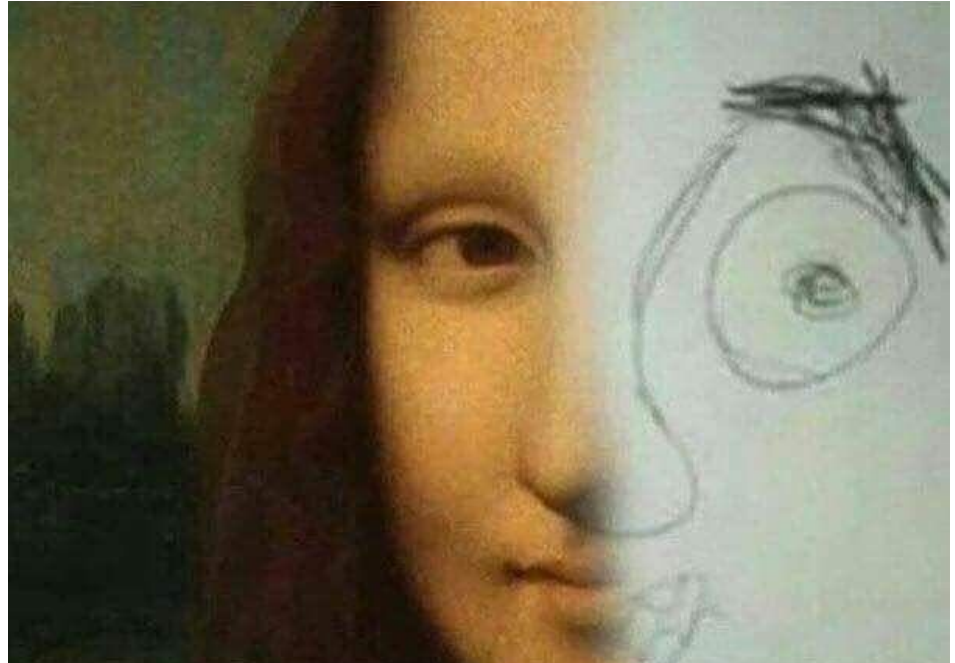
Working Together - What Worked

- Split into teams of front-end, back-end
- Modular Code - Easy Integration
- Flexible Weekly Meetings
- An Awesome CP



Working Together - What Didn't Work

- GroupMe → Slack
- Agile vs Waterfall
- Didn't have a set meeting time
each week outside of CP
meetings



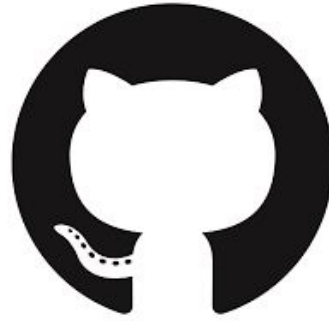
Project Design - What Worked

- Mockups in Adobe XD
- Github
- LA Open Data
- Python for data cleaning

Project Design - What Didn't Work

- National crime data vs local crime data
- Impossibly large scope (too many features)
- Original data sets were too large
- Mixing Datasets
- Airbnb integration
- Github branch mergings
 - Separate Parts
 - Finally Combined

Additional Software and Tools



Data Structures

HashMap - Crime code conversion to description

Array - Heatmap Points

Vector - Multithreading

Pandas Data Frame - Preprocessing

Sets - Grouping by unique crime codes

Classes

CSCI 103 - Intro to Programming

CSCI 104 - Data Structures

CSCI 170 - Algorithms

ITP 115 - Python

ITP 303 - Full Stack

WRIT 340 - Documentation

ITP 190 - User Interface Design

Demo

Thank you
