HPC in the City: Pandemics

SC23 Denver, CO | i am hpc.

Team Goals and Project Plan

November 4, 2023

HackHPC Hackathons and Codeathons

HTTPS://HACKHPC.GITHUB.IO/HPCINTHECITY23

The University of Texas at Austin
Center for Pandemic Decision Science

STAR PARTNERSHIP PROGRAM

TACC TEXAS ADVANCED COMPUTING CENTER

Omnibond Engineering • Trust • Identity

VOLTRON DATA

SGX3 Extend. Expand. Exemplify.

Theme Song: Welcome Back

Coreen Mullen

Xinyi Miao

Evans Etrue Howard

REDWARN

Mentors

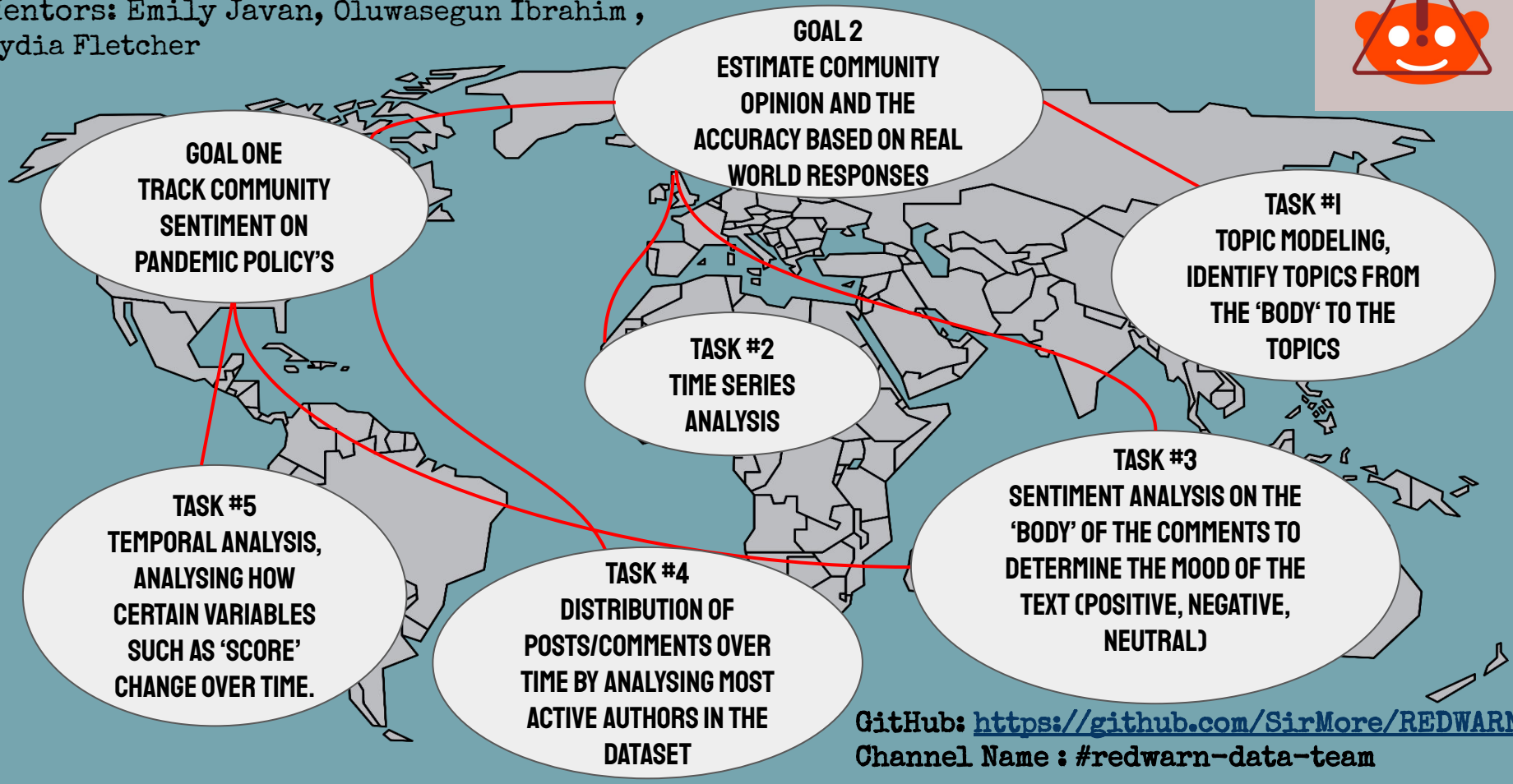
- Emily Javan
- Oluwasegun Ibrahim
- Lydia Fletcher

Qimora Mason

Ahmad Samyono

REDWARN (Reddit Data for Early Warning and Response to Pandemics)

Mentors: Emily Javan, Oluwasegun Ibrahim , Lydia Fletcher



GitHub: https://github.com/SirMore/REDWARN

Channel Name : #redwarn-data-team

Project Plan

Evans

- GITHUB LEAD
- CODE COLLABORATION
- DATA ANALYSIS
- TASK #3

Qimora

- CODE COLLABORATION
- ANALYSING DATA
- TASK #I

Ahmad

- ANALYSING DATA
- CODE COLLABORATION
- TASK #4

Xinyi

- CODE COLLABORATION
- VISUALISATION
- #TASK #5

Coreen

- POSTER AND SLIDE CREATION
- CODE COLLABORATION
- ANALYSING THE DATA
- #TASK 2

Hackers

Evans

Ahmad

Coreen

Qimora

Xinyi

Mentors

TEAM RENDER MAGES

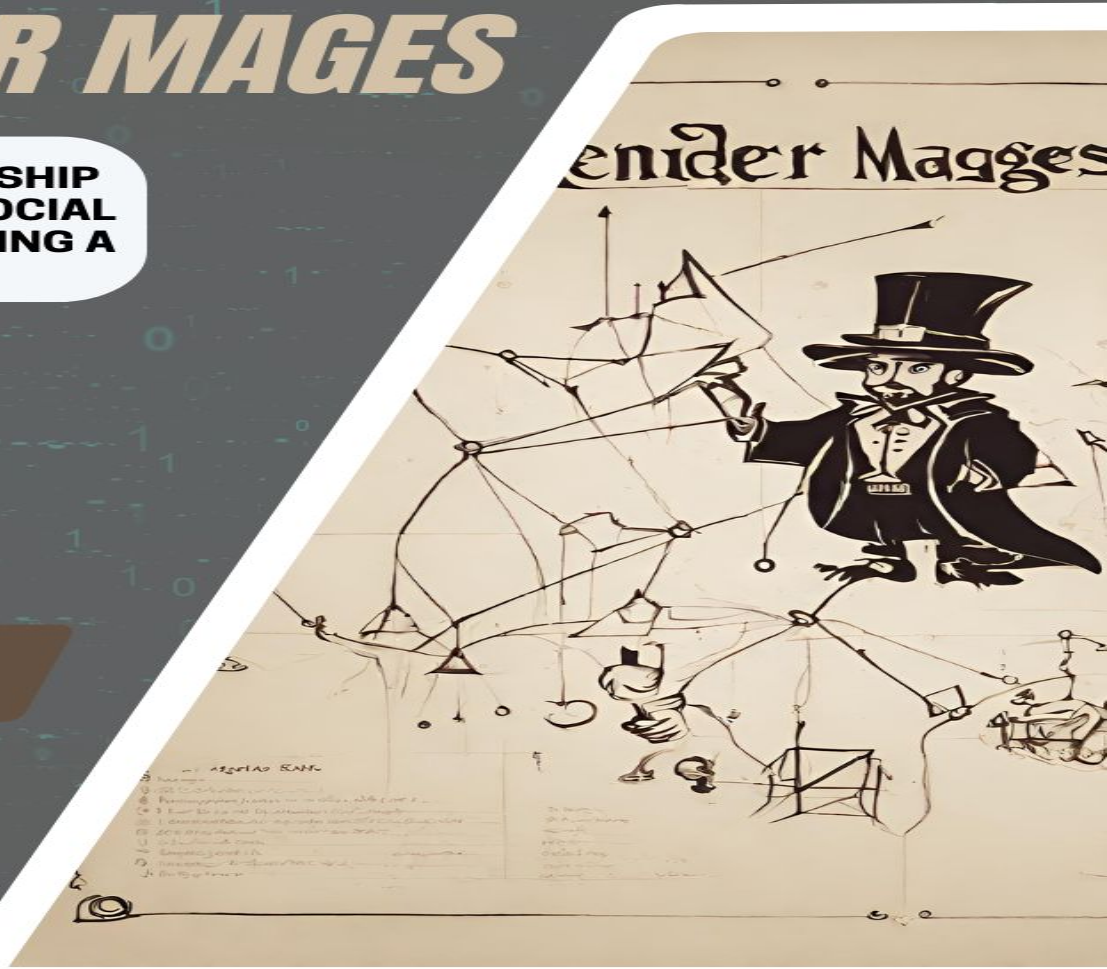
EXAMINING THE RELATIONSHIP BETWEEN MOBILITY AND SOCIAL VULNERABILITY INDEX DURING A PANDEMIC

GIDEON OSEI BONSU
JOSHUA HARRELL
CLARENCE CONNER
DANEISHA HARRIS
SUSAN GARZA

JOSE HERRERA

EMMA BUKOWSKI

Theme Music: Believer



Render Mages

Goals	▪ Explore the relationship between changes in mobility and social vulnerability score (SVI) in Austin, Texas ▪ Determine if this relationship is dependent on mobility restrictions
Project Plan	▪ Select the appropriate time period ▪ Compare how mobility is different from selected dates to other times ▪ Evaluate the relationship between SVI and Mobility ▪ Verify the evaluations to show a general pattern ▪ Review calculations to improve results ▪ Visualize results

GitHub: https://github.com/LaJoshua/Mobility-and-Social-Vulnerability-Index

Tasks

JOSHUA HARRELL
GitHub Operator

Susan Garza
Poster Lead

GIDEON OSEI BONSU
Coding Lead

Clarence Conner
Documentation Lead

DaNeisha Harris
PowerPoint Designer

JOSE HERRERA
Mentor

Emma Bukoswki
Mentor

MASSY SITUATION:
Mobility Data Analysis

Team name: Party Animals

Mentor: Kelly Gaither
Co-Mentor: Gladys Chen
Hackers: Leah Monet Morgan, Yamonta Gaines, Michael Olubode, Lisa Phan, Alex Gutierrez

Theme_song: WE ARE ONE

Party Animals Goals and Plans

- **Overall Party Goal: Enhance public safety and situational awareness by analyzing mobility data from Safegraph to identify and visualize mass gatherings that occurred from 2018 through February 2022.**
  - **1st Party Task:**

    Get a list of actual historical mass gathering events – date, location, and size
  - **2nd Party Task:**

    Find 1st Party Task events in the mobility data
  - **3rd Party Task:**

    Compare actual mass gathering events to representations in the mobility data.
  - **4th Party Task:**

    Analyze the data to identify recurring patterns and trends in mass gatherings, such as the frequency, size, and locations of events, in order to gain better understanding of the dynamics involved.
  - **5th Party Task:**

    Investigate the relationship between mass gatherings & superspreader events

Roles of the Party Animals

Primary personnel:

Visualization: Michael Olubode

Coding: Lisa Phan

Statistics: Yamonta Gaines & Alex Gutierrez

Github: Alex Gutierrez

Ground Truth Research: LeahMonet Morgan & Yamonta Gaines

Census Data Expert: Whole Group

Safegraph Data Expert: Whole Group

Shared Spaces:

- Documents/Presentations/Data
  - Google Drive
- Comms
  - Discord Channel #massysituation
- Source Code Repository
  - Github
    - Team Repo URL

Party task 5:

Understanding the relationship between mass gatherings and super-spreader events during Covid-19

- Subtask 1: Looking at pattern of attendees leaving mass-gatherings (~ 0.5 day)
- Subtask 2 : Map this pattern to covid spread from CDC (1 day)
- Subtask 3: Choropleth map visualization (~ 0.5 day)

Team Name

Overall Project Goal:

- Sub goal 1 - Estimated Time Needed
  - Lead person
- Sub goal 2 - Estimated Time Needed
  - Lead person
- Sub goal 3 - Estimated Time Needed
  - Lead person
- ….

Shared Spaces:

- Documents/Presentations/Data
  - (ex. Google Drive, Box ….)
    - URL to resource
- Comms
  - Discord Channel #Channel(s)name
- Source Code Repository
  - Github
    - Team Repo URL

Team Name

Overall Project Goal:

Team Roles:

- Mentors
  - Mentor Names
- Deliverables: Github Repo and custom README.md
  - Lead Name
- Deliverables: Presentation
  - Lead Name
- Deliverables: Poster
  - Lead Name
- Primary Coder
  - Lead Name
- Primary Data Manager/Wrangler
  - Lead Name
- ……

QUESTIONS ??

Next Session:

- **DAY 3 AFTERNOON CHECK-IN: Team Progress**
  [Sunday, *11/5/23 @ 2:00pm CST*]

  **REMEMBER Time Change Tonight!

Schedule:

https://hackhpc.github.io/hpcinthecity23/schedule.html

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