



HACK THE THREAT 23:  
*One-Day Progress  
Team Status*

March 4, 2023

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HACK THE THREAT 23:



# *Anti-Hurricane Hurricane Club*

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# ANTI-HURRICANE HURRICANE CLUB

## SATURDAY MORNING UPDATE

Project Status		Tasking	
Created Github repository	Ricky	Start creating visualizations	Waiel
Exploratory Data Analysis	Waiel	Draft dashboard design	Ricky
Information about Data	Ricky	Create basic app layout	Ashwin
Data cleaning	Waiel	Create proper readme file	Tanmay
Principal Component Analysis	Waiel		



# ANTI-HURRICANE HURRICANE CLUB

## SUNDAY MORNING UPDATE

Project Status: Busy		Tasking	
✓ Visualization ideas	Ricky	❑ Coding base dashboard	Ashwin
✓ Dashboard features ideas	Ricky	❑ Creating visualizations	Waiel
✓ Basic layout idea	Ashwin	❑ Creating visualizations	Tanmay
✓ Draft project impact	Ricky	❑ Project description readme	Ricky



# ANTI-HURRICANE HURRICANE CLUB

## Impact of the project on Environmental, Social, and/or Cybersecurity Threats

- Social ‘threat’:
- “SVI can be used to:
  - • Allocate emergency preparedness funding by community need.
  - • Estimate the amount and type of needed supplies like food, water, medicine, and bedding.
  - • Decide how many emergency personnel are required to assist people.
  - • Identify areas in need of emergency shelters.
  - • Create a plan to evacuate people, accounting for those who have special needs, such as those without vehicles, the elderly, or people who do not understand English well.
  - • Identify communities that will need continued support to recover following an emergency or natural disaster.”
- Dashboard goals: help visualize SVI so it is easier to assess above
- See difference in SVI after Hurricane Maria (2017) [elaborate on impact of project]

# ANTI-HURRICANE HURRICANE CLUB

## Information about Dataset

This dataset was created by ATSDR's Geospatial Research, Analysis & Services Program (GRASP).

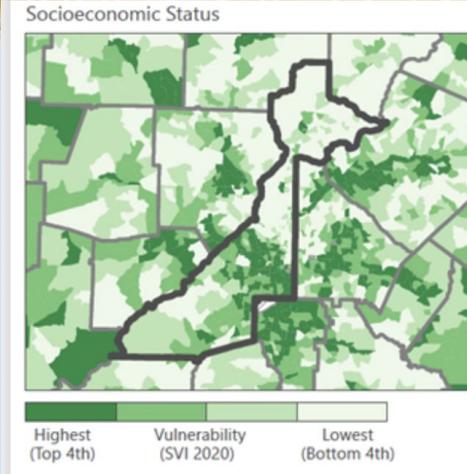
This dataset contains 'Social Vulnerability Indices' per subdivision of counties area of Puerto Rico for the years 2016 and 2018. The 15 variables are categorized into four themes: Socioeconomic Status, Household Composition & Disability, Minority Status & Language, and Housing Type & Transportation.

The dataset contains over 120 columns because it contains many estimates per variable [count (E\_) + MOE (M\_), percentage (EP\_) + MOE (MP\_), percentile (EPL\_), percentile ranking, flags for percentage >90th percentile (F\_)], values aggregated per theme (sum (SPL\_) + percentile ranking (RPL\_), flags (F\_)).

# ANTI-HURRICANE HURRICANE CLUB

## Visualization / Dashboard ideas:

- Rankings vs other variables
- Before/after 2016 vs 2018
- Something similar to map on [https://www.atsdr.cdc.gov/placeandhealth/svi/fact\\_sheet/fact\\_sheet.html](https://www.atsdr.cdc.gov/placeandhealth/svi/fact_sheet/fact_sheet.html)
  - Can visually see where are counties with highest vulnerabilities
- 2nd tab with full description of variables? Maybe like a condensed form of the table on [https://www.atsdr.cdc.gov/placeandhealth/svi/documentation/pdf/SVI2016Documentation\\_01192022.pdf](https://www.atsdr.cdc.gov/placeandhealth/svi/documentation/pdf/SVI2016Documentation_01192022.pdf)
- 



## HACK THE THREAT 23:



# 2 Hack 2 Furious





# 2Hack2Furious 🤡

**Team Goal:** Create a web app that allows a user who doesn't understand data security to clean and anonymise their data.

## Current Status:

- Created mockup web GUI
- Designed data flowchart
- Set up git repo and cloned to devices

## Tasks:

1. Writing CSV reader - Sean
2. Writing auto-cleaner - Kai
3. Writing auto-anonymizer - Ziggy
4. Making web app - Michelle

## Possible Concerns/Issues:

- Might encounter the pdf or other type of file
- User doesn't understand what could potentially still be sensitive or unethical data.



# 2Hack2Furious



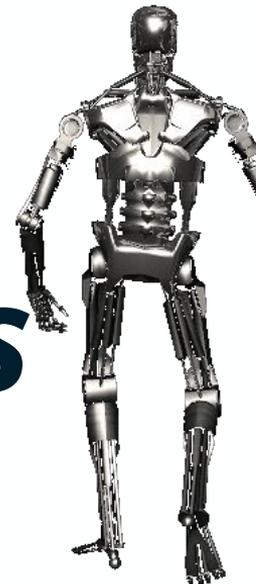
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✓	CSV Reader
	Data Cleaner
	Data Anonymizer
	Web App

## HACK THE THREAT 23:



# *Techniators*





**Team Goal:** Create a tool/app that makes fake news detection easier

## Current Status:

- Selected a [fake and real news](#) dataset
- Completed first phrase of the Application deployment testing
- Data Exploration and parallel cleaning about half way
- GitHub Repo setup with environment file

## Tasks Ahead:

- Data cleaning - [Sarah, Lisa] - *In progress*
- EDA - [Kelvin, Lisa] - *In progress*
- Feature Engineering [Caesar]
- ML Model Training [Kelvin, Lisa]
- App Development & Deployment [Caesar] - *In progress*

## Possible Concerns/Issues:

- Model fine tuning
- Dataset size and representativeness/limitations
- Dataset availability



# Techniator - One-day Progress

HACK THE THREAT 23



**Team Goal:** Create a tool/app that makes fake news detection easier

## Current Status:

- Selected a [fake and real news](#) dataset
- Completed first phrase of the Application deployment testing
- Data Exploration and parallel cleaning about completed
- GitHub Repo setup with environment file

## Tasks Ahead:

- Data cleaning - [Sarah, Lisa] - *Completed*
- EDA - [Kelvin, Lisa] - *In progress*
- Feature Engineering [Caesar, Sarah] - *In progress*
- ML Model Training [Kelvin, Lisa] - *In progress*
- App Development & Deployment [Caesar] - *In progress*

## Possible Concerns/Issues:

- Model fine tuning
- Dataset size and representativeness/limitations
- Dataset generalization

