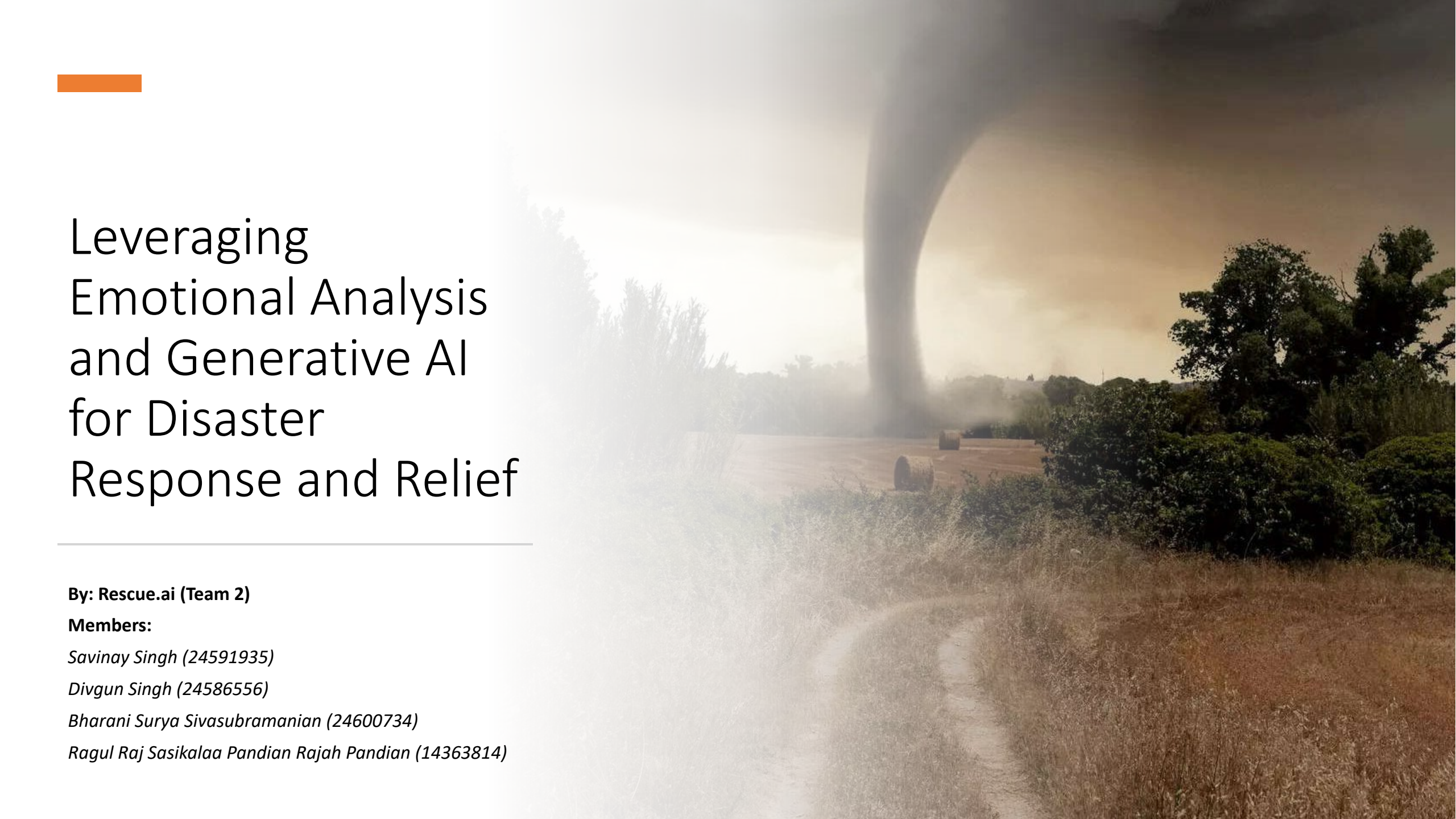




Leveraging Emotional Analysis and Generative AI for Disaster Response and Relief

By: Rescue.ai (Team 2)

Members:

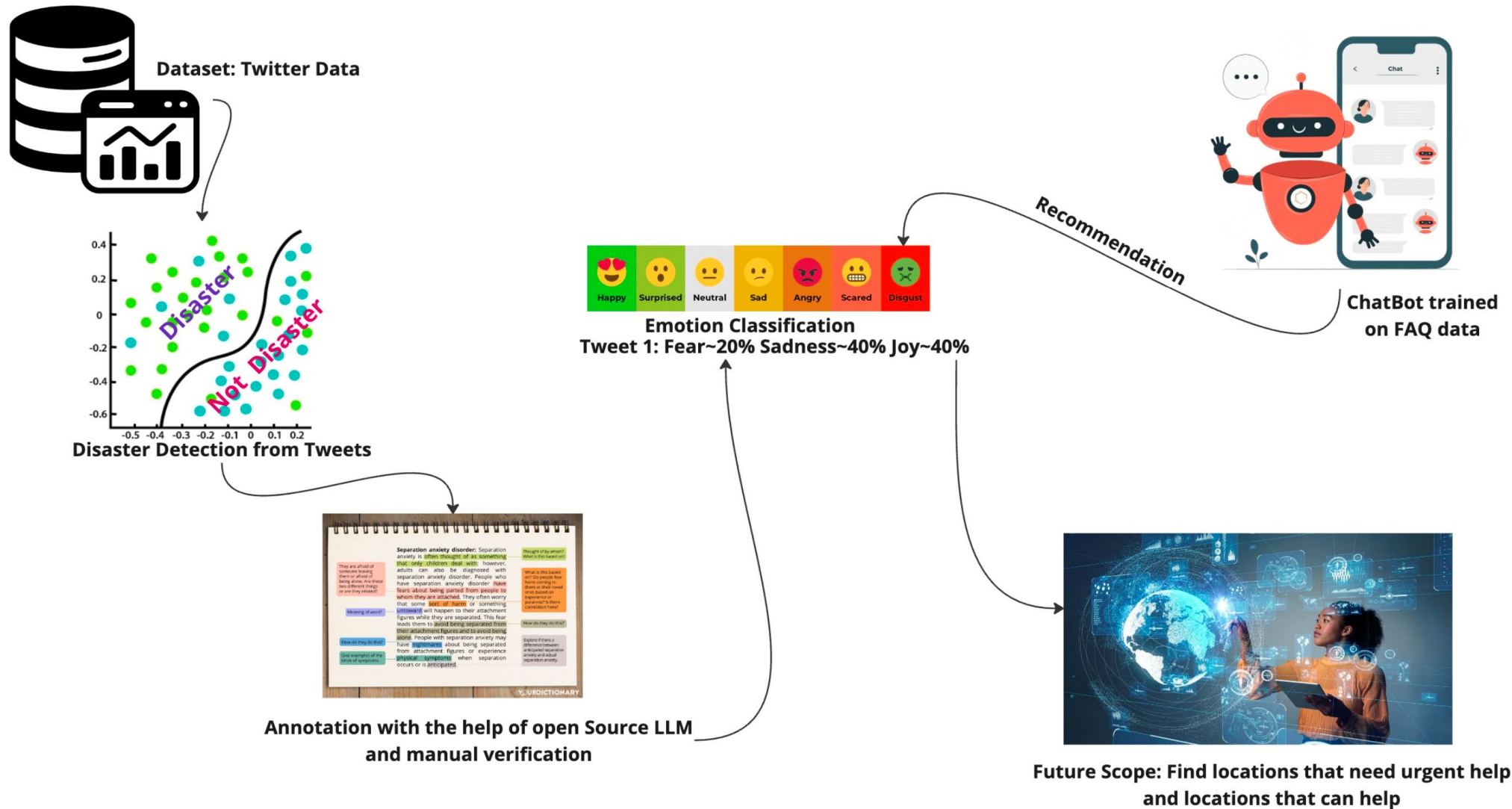
Savinay Singh (24591935)

Divgun Singh (24586556)

Bharani Surya Sivasubramanian (24600734)

Ragul Raj Sasikalaa Pandian Rajah Pandian (14363814)

Workflow



Hurricane Harvey Dataset

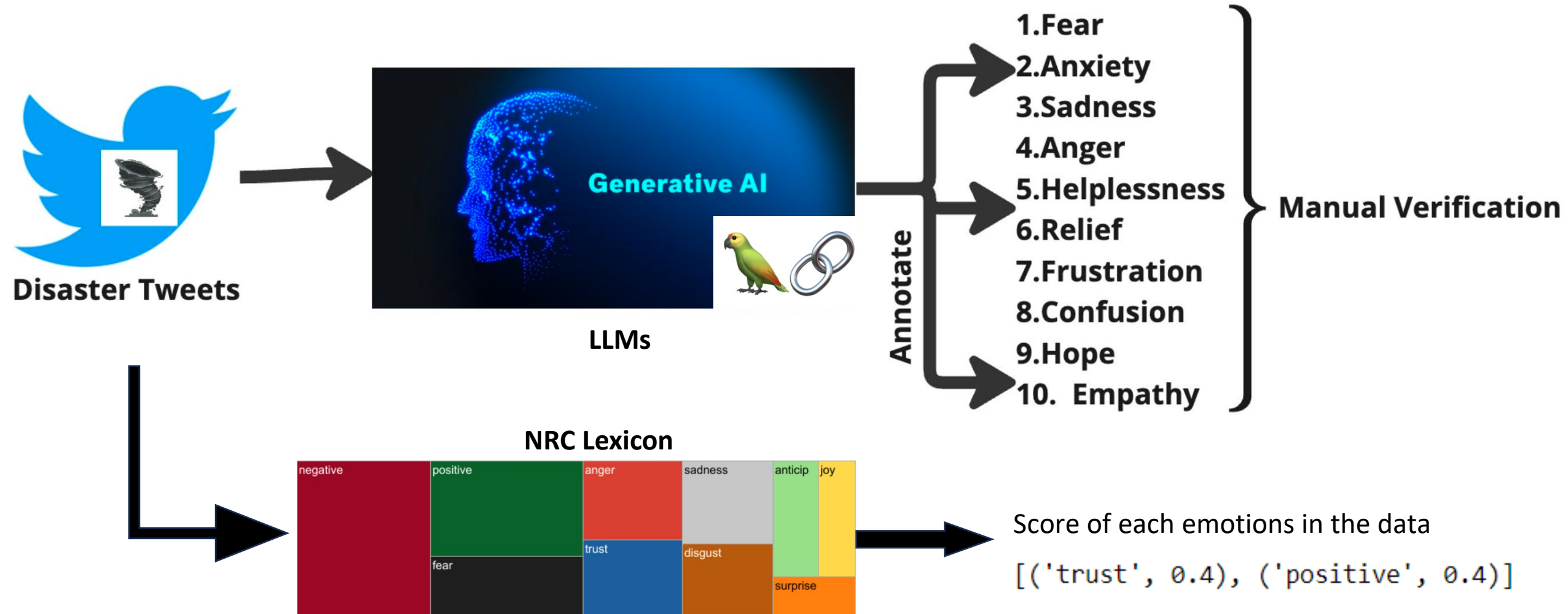
A	B	C	D	E	F	G
	ID	Likes	Replies	Retweets	Time	Tweet
0	9.01E+17	3	0	0	8/25/2017 14:44	If you do decide to drive in for #ColdplayHouston be prepared to stay because there might not be gas to get you home. #HurricaneHarvey
1	9.01E+17	0	0	0	8/25/2017 14:44	As Hurricane Harvey is fast approaching, now is the time to do what you can to prepare your property to minimize... http://fb.me/8TrKU8lqf
2	9.01E+17	6	0	1	8/25/2017 14:44	Is @JerryJordan_KTT providing live #HurricaneHarvey coverage for @KicknTheTires ?
3	9.01E+17	0	0	0	8/25/2017 14:44	I'm waiting for a Steve Harvey Hurricane meme
4	9.01E+17	0	0	0	8/25/2017 14:44	The name of the hurricane is Harvey ... Steve Harvey
5	9.01E+17	0	0	0	8/25/2017 14:44	@realDonaldTrump is a shitshow when nothing's going on.
6	9.01E+17	0	0	0	8/25/2017 14:44	If you're able, give blood at @RedCross. Donate, blood, time, money, skills. Hurricane Harvey is a bad one. #unite #help #serve
7	9.01E+17	0	0	0	8/25/2017 14:44	Summary for Hurricane Harvey (AT4/AL092017) http://fb.me/16OrHtjha
8	9.01E+17	0	0	0	8/25/2017 14:44	NASA: RT ESA_EO: Just in! #Sentinel3 measures #HurricaneHarvey's temperature as the #storm quickly approaches the ? https://twitter.com
9	9.01E+17	4	0	6	8/25/2017 14:44	?Life-threatening? Hurricane Harvey heads toward Texas coast
10	9.01E+17	0	0	0	8/25/2017 14:44	Daddy, please get out of the way of #HurricaneHarvey I need you safe!!
11	9.01E+17	0	0	0	8/25/2017 14:44	Everyone, please pray for Texas. Hurricane Harvey is nearly a category 3 storm, and it's going to hover there for at least three days!
12	9.01E+17	0	0	1	8/25/2017 14:44	Hurricane Harvey Response Live Updates AT&T http://about.att.com/inside_connections_blog/hurricane_harvey
13	9.01E+17	0	0	0	8/25/2017 14:44	Hi Maria, Will Bush Airport & Hobby Expect a SuperStorm Sandy's Storm Surge with Hurricane Harvey ? pic.twitter.com/t8oVNqDxkp
14	9.01E+17	1	0	0	8/25/2017 14:44	Praying for Corpus Christi & Houston ! #HurricaneHarvey
15	9.01E+17	2	0	0	8/25/2017 14:44	For all of you in #HurricaneHarvey territory I hope you find a way to stay safe! I'll keep you all in my thoughts.

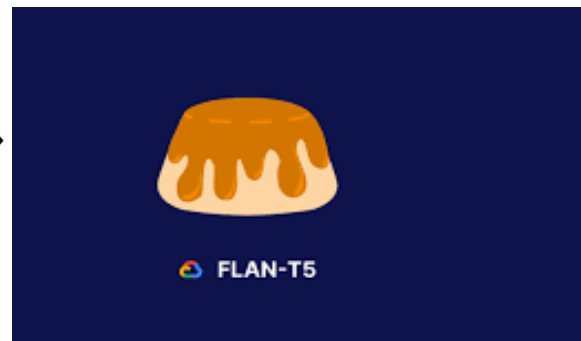
Shape: 398935*6

Source: <https://www.kaggle.com/datasets/dan195/hurricaneharvey>

Disaster Detection

Hybrid Annotation (Plan)





Model Strength

- Good at a wide range of tasks, including translation, summarization, and question-answering.
- Encoder-Decoder Model

- Good at following instructions and completing requests thoughtfully.
- Decoder only model

Accuracy

~25%

```
# Print the result  
print(f"Accuracy: {accuracy:.6f}%")
```

Accuracy: 23.550000%

Falcon-7B Instruct

~45%

Accuracy: 0.441

Flan T5 base

Decoding Emotions in the Tweets (pending

HurricaneBot: Empowering Help-seekers with a Hurricane Chatbot (pending

Unlocking the Power of Emotional Analysis: A Future of Geo-Tagged Spatial and Temporal Insights for Disaster Relief

Unlocking the Power of Emotional Analysis: A Future of Geo-Tagged Spatial and Temporal Insights for Disaster Relief

Thank You!

