Leveraging Social Media to Map Disasters

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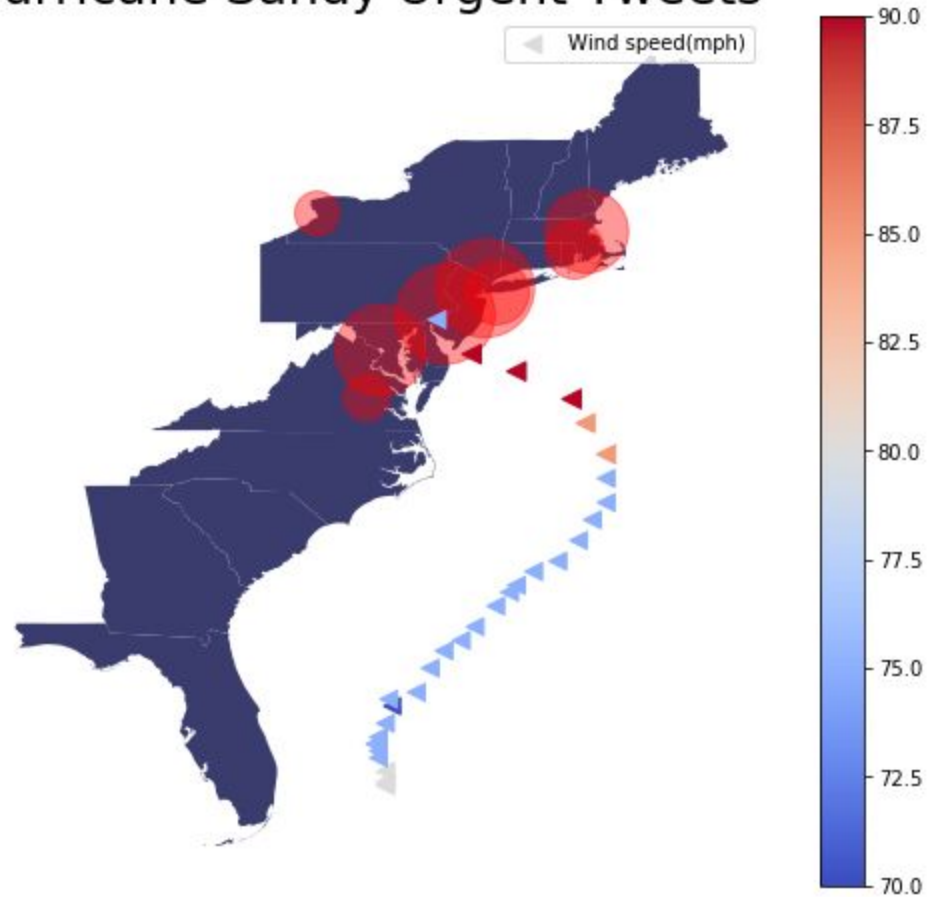
General Assembly

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In this project we demonstrate the capacity to leverage Social Media to map distress calls in support of disaster response. We focus on Twitter as a platform, and Hurricane Sandy as our demonstration case.

We obtain tweets from the Twitter API and TwitterScraper, which are complementary, and allow us to target specific Twitter handles, East Coast urban areas, time periods, and keywords. With Word2Vec vectorizer, trained on GoogleNews Vectors. we classify tweets into binary categories of "urgent" or "non-urgent", and map our findings using GeoPandas.

The potential of social media to assist in disaster response is clear. This project is a demonstration of capabilities which could be expanded upon. Investing resources in expanded API access, using additional social media platforms, training our model on additional disasters and associated data, and iterative classification offer opportunities to build upon the foundation we have established.