NOAA CREST – Doctoral Student - Jose Pillich

Abstract:

Temperature Health Index(THI): Identifying Vulnerable Populations Due to Increasing Temperatures

The Temperature Health Index (THI) is a spatial model that identifies vulnerable populations that are impacted by increased temperatures in New York City. THI is constructed from environmental and socioeconomic datasets producing a spatial product that could be insightful for a range of stakeholders such public health officials, developers and even city dwellers. The four primary layers of THI are the air temperature heat index, land surface temperature, urban vegetation and NOAA's social vulnerability layer. The model is further calibrated using New York City's hospitalization records to adjust the primary layers. The end result of this analysis will provide a detailed demographic snapshot of the populations that are impacted down to the building level resolution. The analysis could then be utilized to provide guidance to planners for mitigating the impact of increased temperatures to certain populations by recommending areas that need more vegetation. Lastly, THI will be used to develop different types of scenarios to recommend cool shelters in areas where there are the most vulnerable populations. Therefore, the primary objective of this research is to examine the impacts of THI from an interconnected perspective providing better insights into the challenges and developing solutions for mitigation.

Prefer Poster Presentation

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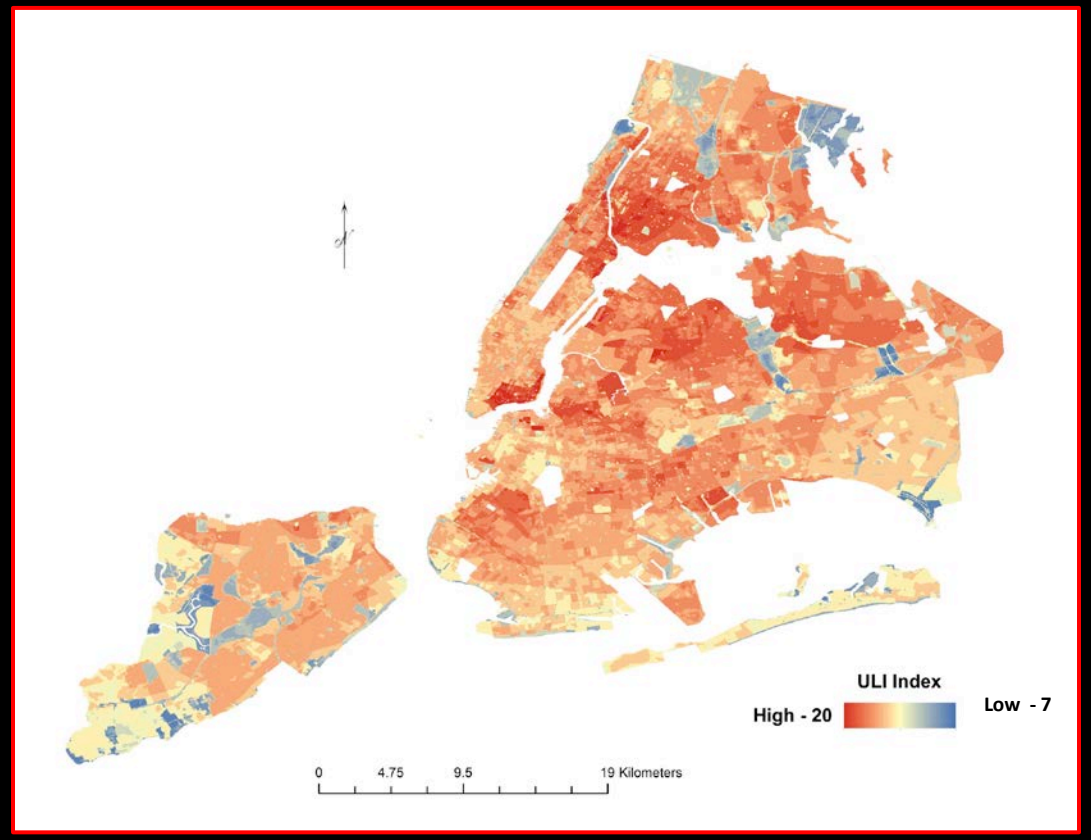
Temperature Health Index(THI): **Geospatial** Tool for Identifying At-Risk Populations Impacted by High Temperatures in New York City

1. Explanation of environmental & Social Index Construction
2. Explanation of the Spatial Index Results in NYC



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