Data Science for Assessing Hurricane Damage and Recovery

Youngjun Choe, PhD
Assistant Professor
Department of Industrial & Systems Engineering
University of Washington

Abstract: Hurricanes are costing the U.S. billions of dollars every year since 1980s. 2017 Hurricane Harvey alone costed $125 billion. As climate change is expected to continue intensifying hurricanes, we need to be prepared to assess hurricane damage and recovery more efficiently so we can respond to and recover from a hurricane-induced disaster more effectively.

This talk highlights two ongoing projects in the Disaster Data Science Lab at UW. The first project uses satellite imagery data to automatically identify hurricane-damaged buildings. The second project uses personal fitness monitoring data to assess community-level recovery of fitness activity. Both projects study the Greater Houston metropolitan area after Hurricane Harvey as a case study.

Bio: Youngjun Choe is an Assistant Professor of Industrial & Systems Engineering at the University of Washington, Seattle. His research centers around developing statistical methods to infer on extreme events (e.g., natural hazard-induced disasters) using empirical and simulated data. He received his Ph.D. in Industrial & Operations Engineering and M.A. in Statistics from the University of Michigan, Ann Arbor. He holds bachelor's degrees in Physics and Management Science from KAIST in Korea.