

Automatic Detection of Damaged Buildings on Post-Hurricane Remotely Sensed Imagery

Dr. Youngjun Choe

Department of Industrial & Systems Engineering
University of Washington

Abstract: When a hurricane makes landfall, situational awareness is one of the most critical needs emergency managers face before they can respond to the event. This project, supported by the [Data Science for Social Good](#) (DSSG) program of the eScience Institute in Summer 2018, seeks to improve current practices for damage assessment by using a machine learning algorithm to automatically annotate remotely sensed imagery captured after Hurricane Harvey in Houston, Texas. Data sources include the National Oceanic and Atmospheric Administration, the Federal Emergency Management Agency, Oak Ridge National Laboratory, Microsoft, and DigitalGlobe.

More information on the project can be found on the Disaster Data Science Lab's [website](#). This seminar is largely based on the final presentation (available on [YouTube](#)) given by the DSSG fellows at the University of Washington on August 16, 2018.

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.