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ROLES:	MSc. Systems Science Candidate University of Ottawa
DISCIPLINES:	Operations research, Decision analysis, Simulation modeling
KEYWORDS:	Value-based design, decision analysis and evaluation, Community preparation and adaptation, Adaptive strategies, Storm simulation

RESEARCH INTERESTS:

There is an increasing amount of evidence that the climate is changing at an unnatural rate on a global scale. Unpredictable extreme weather patterns have become a common occurrence and they take a toll on humans from all perspectives as seen in Hurricane Sandy (2012). The damage was undeniable and questions were raised about the preparedness and response of the communities affected. The need to be proactive in preparing for these events as a means of adapting to climate change is evident.

Alex's research interests lie in determining what it means for coastal communities vulnerable to severe storms to be prepared. An emphasis will be placed on the reliability of adaptive response strategies in practice. As a method to evaluate the reliability of the system, a value based approach will be used to construct inputs for a storm simulation mock-up. The simulation can be prescribed as a method to identify gaps in the strategy where improvements can be made.

BIOGRAPHY:

Alex graduated in 2011 from Carleton University, Ottawa, ON with a Bachelor of Science in Biology. His undergraduate research paper introduced him to the subject of systems science when he looked at the controlling mechanisms of transcriptional noise. Pursuing this newfound interest, he began an M.Sc. in Systems Science at the University of Ottawa. He is now working on a project associated with the C-Change ICURA program under the supervision of Dr. Daniel Lane.