Costa's Research Group

Systems Design Engineering – University of Waterloo

Are you passionate about using your engineering skills to help society tackle disaster risk?
My research group at the University of Waterloo is seeking candidates for funded M.Sc. and Ph.D. positions on natural hazards engineering and the application of computational simulations to inform regional disaster risk reduction initiatives. My group will tackle this problem from an engineering perspective that integrates concepts from planning, data sciences, and social sciences to understand disaster impacts holistically. Our goal will be to advance the state of knowledge in disaster risk and recovery and subsequently distill that knowledge down to decisions that foster distributive justice after disasters.

Research areas
- Regional risk assessment.
- Modelling societal impacts of disasters.
- Simulation-informed disaster risk reduction strategies.
- Machine learning and optimization.
- Wicked problems.

Required Qualifications
- Bachelor's degree (for M.Sc. candidates) and/or Master's (for Ph.D. candidates) degree in Systems or Civil engineering or related area.
- Meet the admission requirements listed here.
- Passion for natural hazards engineering and computational simulations & modelling.

Preferred Qualifications
- Experience and/or coursework in natural hazards engineering, community resilience, or risk assessments.
- Experience in computational modelling & simulation.

Interested candidates
Submit responses to the M.Sc. recruitment form and Ph.D. recruitment form or visit the Recruitment page on my website https://www.rcostaresearch.com/.
Questions? Email me at rodrigo.costa@uwaterloo.ca with subject [Student Application].
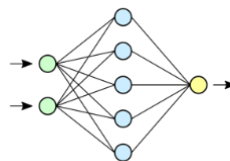
Agent-based Simulations	Regional Risk Assessment	Machine Learning	Informed Policies