

# Tom Logan

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Academic: <https://tomlogan.co.nz>  
Consulting: <https://urutau.co.nz>  
Blog: <https://reckoningrisk.com>

## EDUCATION

- Ph.D. Industrial and Operations Engineering, University of Michigan, Ann Arbor, 2019
- M.S. Geography and Environmental Engineering, Johns Hopkins University, 2015
- B.S. Mathematics, University of Canterbury, 2014
- B.E. Natural Resources Engineering with First Class Honours, University of Canterbury, 2013

## ACADEMIC APPOINTMENTS

- 2019– University of Canterbury  
Lecturer, Department of Civil and Natural Resources Engineering

## RESEARCH AREAS

Risk science, statistical modeling, agent-based and complex-system modeling, data analytics, resilience assessment

Climate change adaptation, urban planning, civil systems engineering, coupled natural-human systems

## PUBLICATIONS

### Articles in Peer-Reviewed Journals

- 2020 Logan, T. M., & Guikema, S. D. "Reframing Resilience: Equitable Access to Essential Services." *Risk Analysis*, doi:10.1111/risa.13492
- 2020 Williams, T. G., Logan, T. M., Zuo, C. T., Liberman, K. D., & Guikema, S. D. "Parks and safety: a comparative study of green space access and its inequities in five US cities." *Landscape and Urban Planning*.
- 2019 Logan, T. M., Williams, T. G., Nisbet, A. J., Liberman, K. D., Zuo, C. T., & Guikema, S. D. "Evaluating urban accessibility: leveraging open-source data and analytics to overcome existing limitations." *Environment and Planning B: Urban Analytics and City Science*, 46(5), 897–913. doi:10.1177/2399808317736528
- 2019 Bordley, R. F., Keisler, J. M., & Logan, T. M. "Managing projects with uncertain deadlines." *European Journal of Operational Research*, 274(1), 291–302. doi:10.1016/j.ejor.2018.09.036
- 2018 Logan, T. M., Guikema, S. D., & Bricker, J. D. "Hard-adaptive measures can increase vulnerability to storm surge and tsunami hazards over time." *Nature Sustainability*, 1(9), 526–530. doi:10.1038/s41893-018-0137-6

- 2016 Logan, T. M., McLeod, S., & Guikema, S. "Predictive models in horticulture: A case study with Royal Gala apples." *Scientia Horticulturae*, 209, 201–213. doi:10.1016/j.scienta.2016.06.033

### **Other publications**

- 2017 Logan, T. M., and Arnott, J. "You've got the power." *Nature* 551, 531. doi: 10.1038/d41586-017-07261-1

## **GRANTS AND AWARDS**

### **Awards and Honors**

- 2020 ProQuest Distinguished Dissertation Award Honorable Mention, University of Michigan  
 2019 Distinguished Leadership Award, College of Engineering, University of Michigan  
 2019 J X Kasperson Student Paper Award, American Association of Geographers Annual Meeting  
 2017 Bonder Fellowship Honourable Mention, Industrial & Operations Engineering, University of Michigan  
 2016 Poster prize, Michigan Student Symposium for Interdisciplinary Statistical Sciences  
 2016 Poster prize, Michigan Engineering Graduate Symposium  
 2012 Environment Canterbury Prize in Natural Resources Engineering  
 2012 Tonkin & Taylor Prize for Hydrology and Hydraulic Engineering  
 2011 First Prize in Sophomore Civil & Natural Resource Engineers' Communication Portfolio  
 2010 Emerging Leaders' Scholarship, University of Canterbury

### **Grants and Fellowships**

- 2020 Te Hiranga Rū QuakeCoRE Proposal Development Grant  
 2018 Rackham Predoctoral Fellowship, University of Michigan  
 2017 University of Michigan Travel Grant  
 2017 University of Michigan Professional Development Grant  
 2017 University of Michigan Professional Development Grant  
 2014 Gordon Croft Fellowship, Environment, Energy, Sustainability, Health Institute, Johns Hopkins University  
 2014 Dean Robert H. Roy Fellowship, Johns Hopkins University  
 2013 Fulbright New Zealand Science and Innovation Graduate Award  
 2013 John R Templin Trust Postgraduate Scholarship  
 2013 Allan Wilson Centre Research Scholarship  
 2010 Mathematics Research Scholarship, University of Canterbury

## TEACHING EXPERIENCE

### University of Canterbury

ENCI630                      Predictive Analytics for Civil and Environmental Engineering  
ENCN375                      Sustainable Engineering for a Changing Climate

### University of Michigan, Ann Arbor

IOE460                      Decision Analysis

## SERVICE

### Editorial Board

*Journal of Infrastructure Systems*

### Journal Peer Review

*Journal of Risk Analysis*

*Journal of Infrastructure Systems*

*Cities*

*Environment and Planning B: Urban Analytics and City Science*

## PROFESSIONAL AFFILIATIONS

Society for Risk Analysis

Society for Risk Analysis, Australia New Zealand

## PROFESSIONAL EXPERIENCE

2018      One Concern, Resilience Data Scientist  
            Palo Alto, California

2016      First Quartile Consulting, Data Consultant  
            USA

2012      Beca Infrastructure Ltd., Engineering Technician  
            Christchurch, New Zealand

2011      Fulton Hogan, Student Engineer  
            Christchurch, New Zealand

2011      Abley Transport, Technical Assistant  
            Christchurch, New Zealand

2011–13   Student Bookshelf, Director  
            Christchurch, New Zealand

## **TECHNICAL SKILLS**

### **Programming**

Python, R, Bash, SQL, PostGreSQL, PostGIS, HTML, Git, Docker,  $\LaTeX$

### **Tools/Applications**

MATLAB, Adobe CS, ArcGIS

Updated April 2020