Tom Logan

Department of Civil and Natural Resources Engineering University of Canterbury, New Zealand tom.logan@canterbury.ac.nz 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, 2019M.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
- 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. doi:10.1016/j.rse.2020.111861
- Logan, T. M., Zaitchik, B., Guikema, S., & Nisbet, A. "Night and day: The influence and relative importance of urban characteristics on remotely sensed land surface temperature." *Remote Sensing of Environment*, 247, 111861. doi:10.1016/j.rse.2020.111861
- 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
- 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 | |
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| 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 |
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| 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 |
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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 |
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| 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