# Tim Williams

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## Objectives

My long-term goals are to advance the understanding of how coupled human-natural systems function, and to explore how we can influence these systems in a way that promotes both the betterment of society and the prosperity of the environment.

## Education

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|---|---|---|
| University of Michigan | PhD in Industrial and Operations Engineering (expected)<br>Advisor: Dr. Seth Guikema | 2016-present |
| University of Canterbury New Zealand | Bachelor of Engineering with 1st class honors<br>Natural Resources Engineering<br>GPA 9.0 / 9.0 | 2012-2015 |
| University of California, Berkeley | Exchange Program<br>Civil and Environmental Engineering<br>GPA 4.0 / 4.0 | 2015 |

## Journal Publications

Logan, T. M., **Williams, T. G.**, Nisbet, A. J., Liberman, K. D., Zuo, C. T., and 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* 2017

Zhou, J., Cenedese, C., **Williams, T.,** Ball, M., Venayagamoorthy, S., Nokes, R. "On the propagation of gravity currents over and through a submerged array of cylinders." *Journal of Fluid Mechanics* 2017

## Conference Presentations

**Williams, T.***, Guikema, S. "Modeling climate resilience in smallholder agricultural systems: an agent-based approach" *Society for Risk Analysis Annual Meeting* 2018

**Williams, T.***, Guikema, S. "Modeling climate resilience in smallholder agricultural systems: an agent-based approach" *Sustainable Development Conference* 2018

**Williams, T.***, Logan, T, Zuo, C., Liberman, K., and Guikema, S. "How accessible are our cities? A cross-sectional analysis of access to green space." *INFORMS Annual Meeting* 2017

Logan, T. M., **Williams, T. G.***, Nisbet, A. J., Liberman, K. D., Zuo, C. T., and Guikema, S. D. "Measuring accessibility to core urban services." *Michigan University-Wide Sustainability and Environment (MUSE) Conference.* 2017

* indicates presenting author

## Poster Presentations

**Williams, T.***, Guikema, S. "Modeling climate resilience in smallholder agricultural systems: an agent-based approach" *University of Michigan Engineering Graduate Symposium* 2018

**Williams, T.***, Logan, T, Zuo, C., Liberman, K., and Guikema, S. "How accessible are our cities? A cross-sectional analysis of access to green space." *Michigan University-Wide Sustainability and Environment (MUSE) Conference.* 2018

**Williams, T.***, Logan, T, Zuo, C., Liberman, K., and Guikema, S. "How accessible are our cities? A cross-sectional analysis of access to green space." *University of Michigan Engineering Graduate Symposium* 2017

**Williams, T.***, Logan, T, Zuo, C., Liberman, K., and Guikema, S. "How accessible are our cities? A cross-sectional analysis of access to green space." *Research Symposium 2017: Urban Environment. Environmental Science and Policy Program. Michigan State University* 2017

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## Service and Leadership

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|---|---|
| Michigan University-wide Sustainability and Environment (MUSE) Conference 2019: Agenda management | 2018-19 |
| Michigan University-wide Sustainability and Environment (MUSE) Conference 2018: Workshops organizer | 2017-18 |
| University of Michigan Adventure Racing, Rogaining, and Orienteering (ARRO) Club president | 2017-19 |
| University of Canterbury Meditation Club President | 2014-2015 |
| Engineers Without Borders (EWB) Canterbury Students Committee member | 2014 |
| EWB Conference Team | 2013-2014 |

## Awards

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|---|---|
| Industrial and Operations Engineering Department Fellowship | 2016 |
| John Blackett Prize | 2015 |
| University of Canterbury Natural Resources Engineering Prize | 2015 |
| Environment Canterbury Natural Resources Engineering Prize | 2015 |
| IPENZ Rivers Group UC Prize | 2014 |
| Tonkin & Taylor Hydrology and Hydraulic Engineering Prize | 2014 |
| Beca Engineering in Society Scholarship | 2014 |
| URS Scholarship | 2014 |
| MWH New Zealand Ltd Geotechnical Engineering Prize | 2014 |
| C S McCully Scholarship | 2014 |

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|---|---|
| Ian McMillan Prizes | 2014 |
| Vice Chancellor's Excellence Award | 2014 |
| MWH / Jim McFarlane Memorial Prize | 2013 |
| College House Rowley Scholarship | 2013 |
| University of Canterbury Emerging Leaders Scholarship | 2012 |
| University of Canterbury Undergraduate Entrance Scholarship | 2012 |
| NZQA Scholarship Physics | 2011 |

## Teaching Experience

**IOE460: Decision analysis** – *graduate student instructor* 2018

**ENCN342: Fluid mechanics** – *tutor* 2015

**ENGR102: Engineering mechanics** - *tutor* 2014

Miscellaneous private tutoring for freshman-level engineering classes 2013-2014

## Industry Experience

**Beca** – *Graduate Environmental Engineer*, Auckland Water Team 2016
Water treatment plant design, pipeline routing, landfill leachate tank design

**Beca** – *Summer Intern*, Auckland Water Team 2014-2015
Writing and editing reports, GoldSim modeling

**Geotechnics Ltd** – *Summer Intern*, Auckland 2013-2014
Calibrating and repairing shear vanes and impact testers

## Key Strengths

Gallup Strengths Finder® strengths:

- **Harmony**: I believe that little can be gained from conflict, and aspire to bring people together via their similarities.
- **Achiever**: I have a constant need for attainment.
- **Relator**: I derive pleasure and strength from forming close relationships with people.
- **Includer**: I want to include people and make them feel a part of the group. I am instinctively accepting of others, regardless of race, sex, nationality, personality, or faith.
- **Learner**: I constantly strive to learn and improve. The process of learning is as important as the knowledge I gain.

## Other Skills

- Programming in R, Python, and MATLAB
- Intermediate level German language

## Interests

- Running: Dexter-Ann Arbor Half Marathon (2018), RAGNAR del Sol (2015), Shotover Moonlight mountain marathon (2014), Speights West Coaster 21K (2014), Speights West Coaster 30K (2013), Port Hills crater rim 28K (2013)
- Adventure racing, rogaining, and orienteering: Naine Rouge gaine (2018), Flying pig (2017), Python rogaine (2016, 2017, 2018), Sleeping Bear Adventure Race (2016),

TWALK (2013, 2014, 2016), Castle hill bouldergaine (2014), Golden Road rogaine (2014), Heights of Winter rogaine (2013)

- Cross country skiing: USCSA Nationals (2017), Michigan cup races (2017)
- Yoga and meditation
- Skiing

## References

Available upon request.