Christopher Tessum

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PROFESSIONAL APPOINTMENTS

Research Scientist—University of Washington   2016–Present
Department of Civil and Environmental Engineering

Postdoctoral Associate—University of Minnesota   2015–2016
Department of Bioproducts and Biosystems Engineering

EDUCATION

Ph.D., Civil, Environmental, and Geo- Engineering (public health minor)—   2009–2014
University of Minnesota

B.M.E., Mechanical Engineering (*cum laude*)—University of Minnesota   2002–2006

SELECTED PUBLICATIONS (*=corresponding author; full list at https://bit.ly/2DzkZoO)

3. Kelp, M., C.W. Tessum*, and J.D. Marshall (2018) Orders-of-magnitude speedup in atmospheric chemistry modeling through neural network-based emulation. *arXiv Preprint*. https://arxiv.org/abs/1808.03874.

2. Tessum, C.W.*, J.D. Hill, and J.D. Marshall (2017) InMAP: A model for air pollution interventions. *PLoS ONE*. **12**:4 e0176131.

1. Tessum, C.W., J.D. Hill, and J.D. Marshall (2014) Life cycle air quality impacts of conventional and alternative light-duty transportation in the United States. *Proc. Natl. Acad. Sci. U.S.A.* **111**:52 18490–18495.

PROGRAMMING LANGUAGES (In order of experience)

Go (Golang); Python; R; Javascript; SQL; FORTRAN; C; MATLAB; LabVIEW

LIBRARIES AND FRAMEWORKS

Tensorflow; Kubernetes; HPC; Google Cloud Platform; Git/Github; Travis CI; PostGIS; React

OPEN-SOURCE PROJECTS (https://github.com/ctessum)

https://github.com/spatialmodel/inmap; https://github.com/gonum/plot/

OTHER PROFESSIONAL EXPERIENCE

English Teacher: Instituto Cultural Peruano Norteamericano; Chiclayo, Peru   2008

Engineer: Energy Management Solutions, Inc.; Minneapolis, MN   2007–2008

Aerodynamics Intern: Volvo Car Corporation; Gothenburg, Sweden   2006

Automation Intern: Voith Paper AG; Heidenheim an der Brenz, Germany   2006

PROFESSIONAL SERVICE

Grant Application Reviewer: NSF, Health Effects Institute, and US EPA

Report Peer-Reviewer: US Department of Energy

Journal Peer-Reviewer: *Nature, Science, Proceedings of the National Academy of Sciences of the USA, Nature Sustainability, Nature Communications, Environmental Science and Technology, Atmospheric Environment, Environmental Research Letters, Proceedings of the Royal Society of London A, International Journal of Geographical Information Science, GeoHealth, Journal of Advances in Modeling Earth Systems*

Member: American Geophysical Union (AGU) and Association of Environmental Engineering and Science Professors (AEESP)