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. Orders-of-magnitude speedup in atmospheric chemistry modeling through neural network-based emulation. *ArXiv Preprints*. 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: *Proceedings of the National Academy of Sciences of the USA*, *Nature Sustainability*, *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)