DANIEL CUSWORTH

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EDUCATION

Harvard University *September 2013 - June 2018*
Ph.D: Atmospheric Chemistry, minor in Computer Science
S.M: Applied Mathematics

University of California, Los Angeles *March 2012*
B.S: Mathematics and Atmospheric & Oceanic Sciences

RESEARCH EXPERIENCE

NASA Jet Propulsion Laboratory *July 2020 - Present*
Data Scientist *Pasadena, CA*

NASA Jet Propulsion Laboratory *September 2018 - June 2020*
JPL Postdoctoral Scholar *Pasadena, CA*

Harvard Department of Earth & Planetary Sciences *July 2013 - May 2018*
Graduate Student Research Fellow *Cambridge, MA*

Legendary Entertainment Applied Analytics *September 2016 - May 2017*
Data Science Intern *Boston, MA*

The Cadmus Group, Inc. *October 2012 - July 2013*
Research Analyst *Waltham, MA*

NASA Jet Propulsion Laboratory *January 2012 - August 2012*
NASA DEVELOP Researcher *Pasadena, CA*

UCLA Joint Institute for Regional Earth System *August 2011 - March 2012*
Science and Engineering (JIFRESSE) *Los Angeles, CA*
Research Assistant

PUBLICATIONS

Cusworth, D. H., Duren, R. M., Yadav V., Thorpe, A. K., Verhulst K., Sander S., Hopkins, F., Rafiq, T., and C.E. Miller (2020), *Synthesis of methane observations across scales: Strategies for deploying a multi-tiered observing network.*, Geophysical Research Letters

Guha, A., Newman, S., Fairley, D., Dinh, T., Duca, L., Conley, S., Smith, M., Thorpe, A. K., Duren, R. M., Cusworth, D. H., Foster, K. T., Fischer, M., Jeong, S., Yesiller, N., Hanson, J., and P. Martien (2020), *Assessment of Regional Methane Emissions Inventories through Airborne Quantification in the San Francisco Bay Area*, Environmental Science & Technology

Cusworth, D. H., Duren, R. M., Thorpe, A. K., Tseng, E., Thompson, D., Guha, A., Newman, S., and C.E. Miller (2020), *Using remote sensing to detect, validate, and quantify methane emissions from California solid waste operations.*, Environmental Research Letters

Cusworth, D. H., Jacob, D. J., Varon, D. J., Chan Miller, C., Liu, X., Chance, K., Thorpe, A. K., Duren, R. M., Miller, C. E., Thompson, D. R., Frankenberg, C., Guanter, L., and C.A. Randles (2019), *Potential of next-generation imaging spectrometers to detect and quantify methane point sources from space*, Atmos. Meas. Tech.

Cusworth, D. H., Jacob, D. J., Sheng, J.-X., Benmergui, J., Turner, A. J., Brandman, J., White, L., and C.A. Randles (2018), *Detecting high-emitting methane sources in oil/gas fields using satellite observations*, Atmos. Chem. Phys.

Cusworth, D.H., Mickley, L.J., Sulprizio, M.P., Liu, T., Marlier, M.E., and R.S. DeFries (2018), *Quantifying the influence of agricultural fires in northwest India on urban air pollution in Delhi, India*, Environ. Res. Lett.

Liu, T., Marlier, M.E., DeFries, R.S., Westervelt, D.M., Xia, K.R., Fiore, A.M., Mickley, L.J., Cusworth, D.H., and G. Milley (2018), *Contributions of agricultural burning to air pollution in three Indian cities: Delhi, Bengaluru, and Pune*, Atmos. Environ.

Cusworth, D.H., L.J. Mickley, E.M. Leibensperger, and M.J. Iacono (2017), *Aerosol trends as a potential driver of regional climate in the central United States: Evidence from observations*, Atmos. Chem. Phys.

TECHNICAL SKILLS

Science: Bayesian inference, atmospheric chemistry and transport modeling, imaging spectroscopy, atmospheric trace gas retrievals, mathematical modeling
Programming: R, Python, MATLAB, Unix
Design/Video: Photoshop, Illustrator, InDesign, Premiere, After Effects
Languages: Portuguese (professional proficiency), Spanish (limited proficiency)

ACTIVITIES

- Member, American Geophysical Union
- Member, European Geophysical Union
- Reviewer, Journal of Geophysical Research: Atmospheres
- Reviewer, Atmospheric Chemistry and Physics
- Reviewer, Scientific Reports
- Reviewer, Remote Sensing
- Reviewer, Environmental Research Letters