

Meghan Thurlow

San Francisco, CA



PROFESSIONAL EXPERIENCE

University of California, Berkeley – Haas School of Business, Berkeley, CA

Lecturer, August 2023 to Present

- Co-teaches an immersion course on Business and Public Policy for executive MBA students in Washington, D.C., focused on connecting business and governmental leaders in the areas of Climate, Infrastructure, and AI.

Carbon Reduction Consulting, San Francisco, CA

Consultant, June 2024 to Present

- Leads the technical advisory arm of a boutique consulting team focused on risk mitigation associated with greenhouse gas and air toxics emissions from industrial sources.
- Synthesizes market, regulatory, and geospatial emissions data to identify novel GHG mitigation strategies for private sector companies with reductions targets in the oil and gas sector.

Aclima Inc., San Francisco, CA – hyperlocal air quality & climate tech company

Chief Technology Officer, January 2022 to August 2024

- Reporting directly to the President, managed the day-to-day operations and long-term strategy for the technical team of 20+ engineers across software, data science, hardware, and applied science to deliver on key cross-functional objectives.
- Synthesized inputs from diverse stakeholders, including direct engagement with regulatory and private sector partners, customers, investors, and academic researchers, into a strategic technology roadmap to optimize Aclima's air quality and greenhouse gas monitoring capabilities.
- Led technical business development efforts and diligence with key customers and investors to secure sales and financing (e.g., \$120M+ in seed through series B funding).
- Served as the voice of the company at key events and conferences across multiple sectors
- Managed the IP portfolio, including strategic evaluation of all patents for competitive positioning, engagement with IP counsel, and individual inventorship on ten provisional and full patents.
- Oversaw strategy for broad mobile monitoring deployments. Provided the systems-level view to maximize the impact of Aclima's technology within constraints required by technical capabilities, funding, and legal considerations.

VP of Sensing Systems and Applied Science, October 2017 to January 2022

- Managed the team responsible for design through verification and certification of the company's core mobile air quality sensing hardware.
 - Built and fostered a collaborative partnership with Google to integrate air quality sensors into globally-deployed Street View vehicles ([e.g., Dublin, Ireland success story](#)).
- Led cross-functional technical product development and customer discovery efforts for Aclima's methane emissions abatement products.

- Managed a cross-functional team of data scientists and analysts to develop follow-on features to quantify the duration of leaks, establish the likelihood of current activity, account for sampling artifacts to identify likely leak density, and create a complementary wastewater and biogenic source indication product to support net-zero climate initiatives for state and local governments.
- Led partnerships with three major natural gas utilities to demonstrate product performance, achieving 100% across pilots.
- Co-designed a standard operating procedure to manage the information asymmetry associated with Aclima's identification of potentially dangerous natural gas leaks by establishing a protocol for information sharing among utilities, regulators, and communities.
- Developed prototype algorithm for methane leak identification.

Technical Product Lead, November 2016 to 2017

- Sourced and performed technical diligence on a state-of-the-art optical sensing system from an ARPA-E program to facilitate expansion into a new business vertical and developed proprietary signal processing workflows.
- Managed the product roadmap, feature prioritization, and implementation for Aclima's Outdoor Air Quality Sensing product, bridging the gap from academic proof of concept to commercial scale.

Senior Scientist, November 2014 to November 2016

- Directed a small team leading the evaluation and selection of environmental sensing technologies.
- Established and automated air quality sensor calibration protocols to enable systematic, repeatable calibration, robust data acquisition, and archiving to improve sensor calibration throughput by 300% and enable traceability of data quality.

Optama Inc., Las Vegas, NV –a technology company reducing water and pollution in orchards

Advisor, 2022 to Present

- Advises CEO and COO on fundraising, business model development, technical strategy, go-to-market partnerships, and climate impact at a startup focused on reducing the environmental footprint of growing tree nuts.

University of California, Berkeley, CA

Postdoctoral Researcher, July 2013 to August 2015

- Deployed novel CO₂ sensors and numerical models to quantify urban greenhouse gas emissions.

EDUCATION

University of California, Berkeley, CA - M.B.A with Honors

Harvard University, Cambridge, MA - Ph.D., M.A., Physical Chemistry

Dissertation: Development and Deployment of Solid State Laser-Based Instrumentation to Measure Part Per Trillion Mixing Ratios of Iodine Monoxide and Glyoxal in Situ

Carleton College, Northfield, MN - B.A., Chemistry with Distinction

magna cum laude, Phi Beta Kappa, Sigma Xi, concentration in Spanish Language

Undergraduate Research: Thermodynamics of Carbon Dioxide Adsorption on Zeolites

SELECTED AWARDS & TRAINING

- Misty Award Winner (2024) - Top 20 Individuals in Intelligent and Connected Devices
- FORM + FUND Fellow at UC Berkeley Law (2018)
- Lofgren Alumni Business Fellowship from Carleton College (2017)- *\$120,000 award to support tuition for an executive M.B.A program.*
- Harvard University Center for the Environment Winokur Fellowship (*Declined* - 2015)
- NASA Postdoctoral Program Fellowship (*Declined* - 2012)
- Derek Bok Certificate of Distinction in Teaching at Harvard (2005, 2006, 2008, 2009)
- NIH: Molecular, Cellular, and Chemical Biology Research Training Fellowship (2005-2008)

SERVICE & MEMBERSHIPS

Teach Appreciation co-clerk and Air Quality committee member at San Francisco Friends School, 81 Cents Pay Equity Advisor, Scholar Match mentor (San Francisco), SFSPCA volunteer, Harvard Women in Chemistry, Harvard Graduate Student and Postdoc Council Representative, Science Club for Girls Mentor, Institute of Electrical and Electronics Engineers, American Geophysical Union, American Chemical Society.

SELECTED PRESENTATIONS & PRESS

“West Oakland air pollution disproportionately affects Black, Latino residents, report finds,” [Interview on ABC7 News](#), September 29, 2021.

“The ‘Unprecedented Natural Experiment:’ Stay-At-Home Order Reduces Air Pollution, Offers Clues in Climate Change Fight,” [Interview on CAPRadio](#), April 14, 2020.

“Coronavirus Offers a Clear View of What Causes Air Pollution,” [Quoted in the Wall Street Journal](#), May 3, 2020.

“Aclima for Utilities Introduction,” [Stanford Natural Gas Initiative Methane Emissions Symposium](#), Palo Alto, CA, February 23, 2021.

“Free Radicals and Reactive Intermediates in the Boundary Layer,” [NOAA Chemical Sciences Division Seminar](#), Boulder, CO, May 15, 2015.

“Laser Excitation Spectroscopy as a Probe of Boundary Layer Oxidative Chemistry,” [Los Gatos Research Seminar](#), Mountain View, CA, December 18, 2014.

“When does highway construction to mitigate congestion reduce carbon emissions? A Case Study: The Caldecott Tunnel,” [American Geophysical Union Fall Meeting](#), San Francisco, CA, December 19, 2014

“Observations and Modeling of Glyoxal in an Isoprene-Dominated Forest Environment,” [American Geophysical Union Fall Meeting](#), San Francisco, CA, December 5-9, 2011.

“A Ground-Based Instrument for the Laser-Induced Fluorescence Detection of Coastal Iodine Monoxide (IO),” [American Geophysical Union Fall Meeting](#), San Francisco, CA, December 5-9, 2011.

“Preliminary Results of Glyoxal Measurements at CABINEX 2009,” American Geophysical Union Fall Meeting, San Francisco, CA, December 14-18, 2009.

“Prototype of a Laser-Induced Fluorescence Ground-Based Instrument for Measurements of Atmospheric Iodine Monoxide (IO),” American Geophysical Union Fall Meeting, December 15-19, 2008.

FULL PATENTS

U.S. Patent No.: 111,307,186

Entitled: INTEGRATION AND ACTIVE FLOW CONTROL FOR ENVIRONMENTAL SENSORS

Filing Date: May 10, 2019, granted.

U.S. Patent Application No.: 16/773,873

Entitled: SENSOR AND DATA PLATFORMS FOR VEHICLE ENVIRONMENTAL QUALITY MANAGEMENT

Filing Date: 01/27/2020, allowed.

U.S. Patent No.: 11,519,849

Entitled: METHANE PEAK DETECTION

Filing Date: 07/08/2019, granted.

U.S. Patent No.: 11,719,541

Entitled: HYPER-LOCAL MAPPING OF ENVIRONMENTAL CONDITIONS

Filing Date: 11/13/2019, granted.

U.S. Patent Application No.: 63/160,233

Entitled: METHOD FOR DETECTING HOT SPOTS IN DATA FROM MOBILE MONITORING PLATFORMS

Filing Date: March 12, 2021, allowed.

U.S. Patent Application No.: 63/415,223

Entitled: IDENTIFICATION OF CLUSTERS AND SOURCES OF METHANE

Filing Date: October 11, 2022, application.

U.S. Patent Application No.: 63/433,698

Entitled: QUALITY ASSURANCE OF ENVIRONMENTAL DATA

Filing Date: December 19, 2022, application.

U.S. Patent Application No.: 63/404,510

Entitled: DRIVE ROUTE SELECTION METHODOLOGY

Filing Date: September 6, 2023, application.

U.S. Patent Application No.: 63/442,910

Entitled: METHANE SOURCE INDICATOR

Filing Date: February 2, 2023, application.

U.S. Patent Application No.: 63/532,021

Entitled: LEAK SOURCE

Filing Date: February 2, 2023, application.

PEER-REVIEWED PUBLICATIONS

Maness, H. L., **Thurlow, M. E.**, McDonald, B. C., & Harley, R. A. (2015). Estimates of CO₂ traffic emissions from mobile concentration measurements. *Journal of Geophysical Research: Atmospheres*, 120(5), 2087-2102.

Thurlow, M. E., Co, D. T., O'Brien, A. S., Hannun, R. A., Lapson, L. B., Hanisco, T. F., & Anderson, J. G. (2014). The development and deployment of a ground-based, laser-induced fluorescence instrument for the in situ detection of iodine monoxide radicals. *Review of Scientific Instruments*, 85(4), 044101.
*Editor's Pick.

Griffith, S. M., Hansen, R. F., Dusanter, S., Stevens, P. S., Alaghmand, M., Bertman, S. B., Carroll, M. A., Erickson, M., Galloway, M., Grossberg, N., Hottle, J., Hou, J., Jobson, B. T., Kammrath, A., Keutsch, F. N., Lefer, B. L., Mielke, L. H., O'Brien, A., Shepson, P. B., **Thurlow, M.E.**, Wallace, W., and Zhou, X. L. (2013). OH and HO₂ radical chemistry during PROPHET 2008 and CABINEX 2009—Part 1: Measurements and model comparison. *Atmospheric Chemistry and Physics*, 13(11), 5403-5423.

Fuerstman, M. J., Lai, A., **Thurlow, M. E.**, Shevkoplyas, S. S., Stone, H. A., & Whitesides, G. M. (2007). The pressure drop along rectangular microchannels containing bubbles. *Lab on a Chip*, 7(11), 1479-1489.