

Yuhan Wang

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Education

Ph.D., University of California Berkeley , Environmental Engineering	2020-2024
M.S., University of California Berkeley , Environmental Engineering	2018-2019
B.S., Tsinghua University , Environmental Engineering & Economics	2014-2018

Employment

Postdoc, Stanford University , Earth System Science	2024-present
Research Assistant, Lawrence Berkeley National Lab , Energy Analysis & Environmental Impacts	2019-2024
Intern, California Air Resources Board , Office of Community Air Protection	2019

Research Interests

Keywords	atmospheric chemistry, climate change, and their interactions
Projects (past and ongoing)	solar radiation modification, air quality-meteorology interactions, O ₃ -NO _x -VOC sensitivity, energy and transportation policy evaluation

Honors and Awards

American Geophysical Union (AGU), Outstanding Student Presenter Award	2023
Air & Waste Management Association (A&WMA), Dave Benforado Scholarship (1 st -place)	2022
Tsinghua University, Departmental Academic Scholarship (3 times)	2015,2016,2017
Tsinghua University, Veolia Outstanding Volunteer Award	2015

Publications

In Review, In Prep

- [9] **Y Wang**, L Bastien, L Jin, RA Harley. "Stagnation and Temperature Impacts on Ozone-NO_x-VOC Sensitivities". *In prep*
- [8] X Peng, et al. (including **Y Wang**). "Adaptive Machine Learning-Based Source Apportionment of Particulate Pollution Aids Real-Time Predictions and Long-Term Emission Controls". *Under review (Nature Sustainability)*
- [7] B Zhao, et al. (including **Y Wang**). "Slowly Emerging Climate Impacts under China's Carbon Neutrality and Clean Air Strategies". *Under review (Nature Sustainability)*

Peer-reviewed publications

- [6] L Jin, X Xu, **Y Wang**, et al. "Macroscopic Traffic Modeling Using Probe Vehicle Data: A Machine Learning Approach". *Data Science for Transportation*, 2024
- [5] L Jin, C Jackson, **Y Wang**, et al. "Development and Application of a Household Vehicle Fleet Micro-simulator to Assess the Impact of Technology Progress and Clean Vehicle Policies on Fleet Turnover and Equity". *Transportation Planning and Technology*, 2024
- [4] **Y Wang**, L Bastien, L Jin, RA Harley. "Location-Specific Control of Precursor Emissions to Mitigate Photochemical Air Pollution". *Environmental Science and Technology*, 2023
- [3] L Jin, X Xu, **Y Wang**, et al. "Leveraging Probe Data and Machine Learning to Derive and Interpret Macroscopic Fundamental Diagrams Across U.S. Cities". *2023 IEEE International Conference on Big Data*
- [2] **Y Wang**, D Millstein, AD Mills, S Jeong, A Ancell. "The Cost of Day-Ahead Solar Forecasting Errors in the United States". *Solar Energy*, 2022
- [1] **Y Wang**, L Bastien, L Jin, RA Harley. "Responses of Photochemical Air Pollution in California's San Joaquin Valley to Spatially and Temporally Resolved Changes in Precursor Emissions". *Environmental Science and Technology*, 2022

Presentations and Posters

- AGU Annual Meeting, 2 talks, 1 enlightening, 5 posters, 2020-2024
- AMS Annual Meeting, 1 talk, 2023
- National Oceanic and Atmospheric Administration (NOAA) Regional Chemical Modeling Group, 2023
- Berkeley Atmospheric Sciences Center (BASC) Seminar, 2022
- California Energy Commission (CEC), Project Final Presentation, 2021

Service and Activities

- **Service:** AGU Atmospheric Science Early-Career Committee member
- **Review:** Environmental Science & Technology (ES&T), Atmospheric Chemistry and Physics (ACP), NPJ Clean Air, Geophysical Research Letters (GRL), Transportation Research Board (TRB); AGU OSPA peer reviewer
- **Teaching:** Teaching Assistant (fall 2021) and Grader (spring 2021), CEE 218A Air Quality Engineering
- **Mentor:** 1 undergraduate student (Anass Baba), 1 graduate student (Tianyi Bi)
- **Prelim/Qual Preparation:** Assisted >10 graduate students with prelim and qualifying exams through mock exams and feedback