

Arash Kashfi Yeganeh

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EDUCATION

University of Houston, Houston, TX
Ph.D. in Atmospheric Science

Expected May 2026

University of California, Riverside, Riverside CA
Research Assistant

August 2021

Sharif University of Technology, Tehran, Iran
Master's in Environmental Engineering

May 2019

K.N. Toosi University of Technology, Tehran, Iran
Bachelor's in Civil Engineering

August 2016

SKILLS

Programming Skills and Tools

WRF, SMOKE, CMAQ, FLEX-AOD, AERMOD, Spatial Allocator, Python, Panoply, ArcGIS, Compilation, Debugging, Data Analysis and Visualization (Pandas, Numpy, and Excel)

Professional and Transferable Skills

Research, Creative Problem-solving, Networking, Collaboration, Resiliency and Adaptability, Team Management, Project Leadership and Planning

Communication Skills

Technical Writing, Teaching and Mentorship, Presentation and Public Speaking

PUBLICATIONS

1. First top-down diurnal adjustment to NO_x emissions inventory in Asia informed by the Geostationary Environment Monitoring Spectrometer (GEMS) tropospheric NO₂ columns
Park, J., Choi, Y., Jung, J., Lee, K., **Kashfi Yeganeh, A.** *Scientific Reports*, 2024.
2. A case study of surface ozone source contributions in the Seoul metropolitan area using the adjoint of CMAQ
Kashfi Yeganeh, A., Momeni, M., Choi, Y., Park, J., Jung, J. *Journal of the Air & Waste Management Association*, 2024.
3. Performance of Machine Learning for Ozone Modeling in Southern California during the COVID-19 Shutdown
Do K., **Kashfi Yeganeh, A.**, Gao, Z., Ivey, C. E., *Environmental Science, Atmospheres*, 2024.
4. Constraining East Asia Ammonia Emissions through Satellite Observations and iterative Finite Difference Mass Balance (iFDMB) and Investigating its Impact on Inorganic Fine Particulate Matter
Momeni, M., Choi, Y., **Kashfi Yeganeh, A.**, Pouyaei, A., Jung, J., Park, J., Shephard, M. W., Dammers, E., Cady-Pereira K. E. *Environmental International*, 2024.
5. A comprehensive approach combining positive matrix factorization modeling, meteorology, and machine learning for source apportionment of surface ozone precursors: Underlying factors contributing to ozone formation in Houston, Texas
Nelson, D., Choi, Y., Sadeghi, B., **Kashfi Yeganeh, A.**, Ghahremanloo, M., Park, J. *Environmental Pollution*, 2023.
6. Emerging investigator series: a machine learning approach to quantify the impact of meteorology on tropospheric ozone in the inland southern California
Do, K., Mahish, M., **Kashfi Yeganeh, A.**, Gao, Z., Blanchard, C. L., Ivey, C. E. *Environmental Science: Atmospheres*, 2023.
7. Impacts of the 2020 COVID-19 Shutdown Measures on Ozone Production in the Los Angeles Basin
Ivey, C., Gao, Z., Do, K., **Kashfi Yeganeh, A.**, Russell, A., Blanchard, C. L., Lee, S. *ChemRxiv*, 2020.

GRANT WRITING ASSISTANCE

Grant Title: Refining Ammonia emission using inverse modeling and satellite observations over Texas and the Gulf of Mexico and investigating its effect on fine particulate matter

- **Institution Represented:** University of Houston
- **Lead PI:** Yunsoo Choi
- **Funding Organization:** The Texas Air Quality Research Program (AQRP)
- **Status:** Accepted
- **Project Number:** 22-019
- **Awarded Amount:** \$131,366.00

Grant Title: Assessing the Impact of Revised NH₃ Emissions on Spring and Summer PM_{2.5} Levels in Texas

- **Institution Represented:** University of Houston
- **Lead PI:** Yunsoo Choi
- **Funding Organization:** Texas Air Research Center
- **Status:** Accepted
- **Awarded Amount:** \$6,700.00

MEDIA COVERAGE

News Article: Machine learning helps air pollution researchers trace sources contributing to ozone (Houston Chronicle)

- **Published on** November 14, 2023
- [Link to the article](#)
- Houston Chronicle highlighted my publication titled A comprehensive approach combining positive matrix factorization modeling, meteorology, and machine learning for source apportionment of surface ozone precursors: Underlying factors contributing to ozone formation in Houston, Texas

News Article: How some SoCal cities work to curtail the environmental impact of COVID-19 (Spectrum News' In Focus)

- **Published on** April. 18, 2021
- [Link to the article](#)
- Spectrum News' In Focus highlighted my publication titled Impacts of the 2020 COVID-19 Shutdown Measures on Ozone Production in the Los Angeles Basin

TEACHING EXPERIENCES

- **Teaching Assistant**, Introduction to Global Climate Change, University of Houston. Houston, TX Fall 2023-Present
- **Teaching Assistant**, Air Pollution Control, University of California, Riverside. Riverside, CA Spring 2021
- **Teaching Assistant**, Professional Development for Engineers, University of California, Riverside. Riverside, CA Winter 2020
- **Teaching Assistant**, Aqueous System Analysis Lab, Sharif University of Technology. Tehran, Iran. Spring 2017

CONFERENCE PRESENTATIONS

- A case study of surface ozone source contributions in the Seoul metropolitan area using the adjoint of CMAQ. Poster Presentation at American Geophysical Union, Washington DC. 2024
- Pandemic-Induced Changes in Traffic Patterns and Localized Air Quality in Inland Southern California. Presentation at American Association for Aerosol Research Annual Conference. 2020

HONORS & AWARDS

- University of Houston, Outstanding Graduate Work in Atmospheric Sciences Award 2024
- University of California, Riverside, Chemical Engineering Graduate Fellowship 2019-2020