

Jiachen Zhang, Ph.D.

Department of Civil and Environmental Engineering
University of Southern California
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EDUCATION

- Ph.D., Environmental Engineering**, University of Southern California (USC), Los Angeles, CA 2019
Dissertation: “Impacts of Heat Mitigation Strategies and Pollutant Transport on Climate and Air Quality from Urban to Global Scales”
Advisor: Dr. George Ban-Weiss
- B.S., Atmospheric Sciences**, School of Physics, Peking University, Beijing, China 2014
Dissertation: “Influences of Wildfires on Summertime Ozone Concentrations in the Western United States”
Advisor: Dr. Lin Zhang

PROFESSIONAL APPOINTMENTS

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|-------------------|--|
| Jan 2024-Present | Assistant Professor (Tenure-Track), Department of Civil and Environmental Engineering, University of Southern California |
| Nov 2022-Dec 2023 | Manager, Air Quality Planning and Science Division, California Air Resources Board |
| Spring 2022-2023 | Lecturer (Part-Time), Department of Civil and Environmental Engineering, University of Southern California |
| Oct 2019-Oct 2022 | Air Resources Engineer, Air Quality Planning and Science Division, California Air Resources Board |
| Jun 2019-Dec 2019 | Postdoctoral Researcher, Department of Civil and Environmental Engineering, University of Southern California |
| Aug 2014-May 2019 | Research Assistant, Department of Civil and Environmental Engineering, University of Southern California |
| May 2012-Aug 2014 | Research Assistant, College of Urban and Environmental Sciences, Peking University |
| Jun 2013-Sep 2013 | Research Intern, Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles |

Cited 683 times with an H-Index of 15 (December 2023)

1. Li Y, Ravi V, Heath G, **Zhang J**, Vahmani P, Zhang X, Lee SM, Sanders K, Ban-Weiss G. Air Quality and Public Health Co-benefits of 100% Renewable Electricity Adoption and Electrification Pathways in Los Angeles *Environmental Research Letters* (accepted)
2. Tang X, Rosseler O, Chen S, de l'Aulnoit SH, Lussier MJ, **Zhang J**, Ban-Weiss G, Gilbert H, Levinson R, Destailats H. [Self-cleaning and De-pollution Efficacies of Photocatalytic Architectural Membranes](#). *Applied Catalysis B: Environmental*. 2021 Feb;281:119260.
3. Liao S, **Zhang J**, Yu F, Zhu M, Liu J, Ou J, Dong H, Sha Q, Zhong Z, Xie Y, Luo H. [High Gaseous Nitrous Acid \(HONO\) Emissions from Light-Duty Diesel Vehicles](#). *Environmental Science & Technology*. 2020 Dec 8. 8;55(1):200-8.
4. Tang X, Ughetta L, Shannon SK, de l'Aulnoit SH, Chen S, Gould RA, Russell ML, **Zhang J**, Ban-Weiss G, Everman RL, Klink FW. [De-pollution Efficacy of Photocatalytic Roofing Granules](#). *Building and Environment*. 2019 Aug 1;160:106058.
5. **Zhang J**, Li Y, Tao W, Liu J, Levinson R, Mohegh A, Ban-Weiss G. [Investigating the Urban Air Quality Effects of Cool Walls and Cool Roofs in Southern California](#). *Environmental science & technology*. 2019 May 24;53(13):7532-42.
6. Li Y, **Zhang J**, Sailor DJ, Ban-Weiss GA. [Effects of Urbanization on Regional Meteorology and Air Quality in Southern California](#). *Atmospheric Chemistry and Physics*. 2019 Apr 5;19(7):4439-57.
7. Xu J, **Zhang J**, Liu J, Yi K, Xiang S, Hu X, Wang Y, Tao S, Ban-Weiss G. [Influence of Cloud Microphysical Processes on Black Carbon Wet Removal, Global Distributions, and Radiative Forcing](#). *Atmospheric Chemistry and Physics*. 2019 Feb 7;19(3):1587-603. (Xu J and Zhang J contributed equally to this paper)
8. Santamouris M., Ban-Weiss G., Osmond P., Paolini R., Synnefa A., Cartalis C., Muscio A., Zinzi M., Morakinyo T., Ng E., Tan Z., Takebayashi H., Sailor D., Crank P., Taha H., Pisello A., Rossi F., **Zhang J.**, Kolokotsa D. [Progress in Urban Greenery Mitigation Science—Assessment Methodologies, Advanced Technologies, and Impact on Cities](#). *Journal of Civil Engineering and Management*. 2018 Nov 27;24(8):638-71.
9. Mohegh A, Levinson R, Taha H, Gilbert H, **Zhang J**, Li Y, Tang T, Ban-Weiss G. [Observational Evidence of Neighborhood Scale Reductions in Air Temperature Associated with Increases in Roof Albedo](#). *Climate*. 2018 Dec;6(4):98.
10. **Zhang J**, Mohegh A, Li Y, Levinson R, Ban-Weiss G. [Systematic Comparison of the Influence of Cool Wall versus Cool Roof Adoption on Urban Climate in the Los Angeles Basin](#). *Environmental Science & Technology*. 2018 Aug 29;52(19):11188-97.
11. Meng J, Liu J, Yi K, Yang H, Guan D, Liu Z, **Zhang J**, Ou J, Dorling S, Mi Z, Shen H. [Origin and Radiative Forcing of Black Carbon Aerosol: Production and Consumption Perspectives](#). *Environmental Science & Technology*. 2018 Apr 24;52(11):6380-9.
12. Fu X, Liu J, Ban-Weiss GA, **Zhang J**, Huang X, Ouyang B, Popoola O, Tao S. [Effects of Canyon Geometry on the Distribution of Traffic-related Air Pollution in a Large Urban Area: Implications of a Multi-canyon Air Pollution Dispersion Model](#). *Atmospheric Environment*. 2017 Sep 1;165:111-21.
13. Tao W, Liu J, Ban-Weiss GA, Zhang L, **Zhang J**, Yi K, Tao S. [Potential Impacts of Urban Land Expansion on Asian Airborne Pollutant Outflows](#). *Journal of Geophysical Research: Atmospheres*. 2017 Jul;122(14):7646-63.
14. Kan Y, Liu J, Ban-Weiss G, **Zhang J**, Tao W, Cheng Y, Tao S. [Response of the Global Surface Ozone Distribution to Northern Hemisphere Sea Surface Temperature Changes: Implications for Long-range Transport](#). *Atmospheric Chemistry and Physics*. 2017 Jul 15;17(14):8771.

15. Lu X, Zhang L, Yue X, **Zhang J**, Jaffe DA, Stohl A, Zhao Y, Shao J. [Wildfire Influences on the Variability and Trend of Summer Surface Ozone in the Mountainous Western United States](#). *Atmospheric Chemistry and Physics*. 2016 Nov 24;16(22):14687-702.
16. **Zhang J**, Zhang K, Liu J, Ban-Weiss GA. [Revisiting the Climate Impacts of Cool Roofs Around the Globe Using an Earth System Model](#). *Environmental Research Letters*. 2016 Aug 16;11(8):084014.
17. **Zhang J**, Liu J, Tao S, Ban-Weiss GA. [Long-range Transport of Black Carbon to the Pacific Ocean and its Dependence on Aging Timescale](#). *Atmospheric Chemistry and Physics*. 2015 Oct 20;15(20):11521-35.
18. He C, Li QB, Liou KN, **Zhang J**, Qi L, Mao Y, Gao M, Lu Z, Streets DG, Zhang Q, Sarin MM. [A global 3-D CTM Evaluation of Black Carbon in the Tibetan Plateau](#). *Atmospheric Chemistry and Physics*. 2014 Jul 11;14(13):7091-112.

OTHER PUBLICATIONS

1. **California Air Resources Board**, 2022, [Initial Statement of Reasons for the Advanced Clean Cars II Regulation, Appendix D: Emissions Inventory Methods and Results](#)
2. **California Air Resources Board**, 2021, [EMFAC2021 Technical Document](#)
3. Heath G, Ban-Weiss G, Ravi V, Li Y, and **Zhang J**. 2021. [“Chapter 9: Air Quality and Public Health.” in the Los Angeles 100% Renewable Energy Study](#), edited by Jaquelin Cochran and Paul Denholm. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444-9.
4. **California Air Resources Board**, 2019, [SB 1014 Clean Mile Standard 2018 Base-Year Emission Inventory Report](#)
5. Levinson R, Ban-Weiss G, Chen S, Gilbert H, Goudey H, Ko J, Li Y, Mohegh A, Rodriguez A, Slack J, Taha H, Tang T, **Zhang J**. 2019. [Monitoring the Urban Heat Island Effect and the Efficacy of Future Countermeasures](#). Publication CEC-500-2019-020, California Energy Commission, Sacramento, CA.
6. Seo S, **Zhang J**, Ban-Weiss G, Liu Y, Data-driven Temporal Attribution Discovery of Temperature Dynamics based on Attention Networks, International Workshop on Climate Informatics (CI) 2019
7. Levinson R, Gilbert H, **Zhang J**, Ban-Weiss G, Kleissl J, Pizzicotti M, Zhang W, Dumas N, Kurtz B, Long Y, Nazarian N, Mohegh A, Li Y, Tang X, Chen S, Russell M, Houzé del’Aulnoit S, Berdahl P, Rosado P, Slack J, Goudey H, Destailhats H. 2019. [Solar-Reflective “Cool” Walls: Benefits, Technologies, and Implementation](#). Publication CEC-500-2019-040, California Energy Commission, Sacramento, CA.

SELECTED PRESENTATIONS

Zhang J, Park J, Bui N, Forestieri S, Mazmanian E, He Yu, Parmer C, Quiros D, Investigating the Impact of Port Congestion on Air Pollutant and Greenhouse Gas Emissions from Operations of the Ports of Los Angeles and Long Beach: Insights from the COVID-19 Era and the Influence of Policies. AGU Fall Meeting, Dec 2023. Poster presentation

Zhang J, Accounting for Zero-Emission Vehicle (ZEV) Adoption in California’s On-Road Mobile Source Emissions Inventory (EMFAC). Symposium of California Air Pollution Control Officers Association (CAPCOA) Planning Managers Committee, Nov 2023. Invited Speaker

Zhang J, The Effectiveness, Co-Benefits, and Risks of Climate Change Mitigation/Adaptation Strategies: Adopting Solar Reflective Surfaces & Decarbonizing the Transportation and Energy Systems. College of Urban and Environmental Sciences, Peking University. Jun 2023. Invited Speaker

Zhang J, The Effectiveness, Co-Benefits, and Risks of Climate Change Mitigation/Adaptation Strategies: Adopting Solar Reflective Surfaces & Decarbonizing the Transportation and Energy Systems. Department of Atmospheric and Oceanic

Sciences, Peking University. Jun 2023. Invited Speaker

Zhang J, The Effectiveness, Co-Benefits, and Risks of Climate Change Mitigation/Adaptation Strategies: Adopting Solar Reflective Surfaces & Decarbonizing the Transportation and Energy Systems. School of Environment, Tsinghua University. Jun 2023. Invited Speaker

Zhang J, Chen M, Forestieri S, Kong S, Moreno A, Sala-Moore S, Davari S, Sardar S, Quiros D. Future EMFAC Development: Higher Spatial Resolution Emission Inventory, Coordinating Research Council (CRC) Real-World Emissions Workshop, Mar 2023. Oral presentation

Zhang J, Yao Q, Chen M, Sardar S, Quiros D, Yoon S. Research on Tire Wear and Brake Wear Emissions. CoMotion Conference (Los Angeles), Nov 2022. Oral presentation

Zhang J, Advancing a Systems Approach for Climate Change Mitigation and Adaptation Strategies: Effectiveness, Co-Benefits, and Risks of Adopting Solar Reflective Surfaces and Decarbonizing Energy and Transportation Systems. Department of Civil and Environmental Engineering, University of California, Los Angeles. Apr 2022. Invited Speaker

Zhang J, Solar Reflective Surfaces and Other Climate Change Mitigation/Adaptation Strategies. Environmental Science and Engineering Seminars, California Institute of Technology. Jan 2022. Invited Speaker

Zhang J, Yan F, Sardar S, Pournazeri S, Bahreinian A, Palmere M, Gage J, Javanbakht H. Integrating Consumer Choice-Based Zero-Emission Vehicle Market Share Forecasts into California's On-Road Emissions Modeling. Coordinating Research Council (CRC) Real-World Emissions Workshop, Mar 2021. Poster presentation

Zhang J, Li Y, Levinson R, Liu J, Mohegh A, Tao W, Zhang K, Ban-Weiss GA. Impacts of Adopting Solar Reflective Cool Surfaces on Climate and Air Pollution from Urban to Global Scales. AGU Fall Meeting, Dec 2019. Oral presentation

Zhang J, Investigating the Influence of Cool Wall and Roof Adoption on Climate and Air Quality in the Los Angeles Basin. Los Angeles Environmental Forum, Aug 2018. Oral presentation

Zhang J, Tang X, Levinson R, Destailats H, Mohegh A, Li Y, Tao W, Liu J, Ban-Weiss GA. Investigating the influence of photocatalytic cool wall adoption on meteorology and air quality in the Los Angeles basin. AGU Fall Meeting. Dec 2017. Oral presentation

Zhang J. Modelling the long-range transport of black carbon and the climate impacts of cool roofs around the globe. Department of Atmospheric and Oceanic Sciences, Peking University. Jun 2017. Invited Speaker

Zhang J, Zhang K, Liu J, Ban-Weiss GA. The climate impacts of cool roofs around the globe using an earth system model. College of Urban and Environmental Sciences, Peking University. Jun 2017. Invited Speaker

Zhang J, Zhang K, Liu J, Ban-Weiss GA. Revisiting the climate impacts of cool roofs around the globe using an earth system model. USC CEE Department 25th Anniversary Research Showcase. Dec 2016. Poster presentation

Zhang J, Zhang K, Liu J, Ban-Weiss GA. Revisiting the climate impacts of cool roofs around the globe using an earth system model. AGU Fall Meeting. Dec 2016. Oral presentation

Zhang J, Zhang K, Liu J, Ban-Weiss GA., Revisiting the Climate Impacts of Cool Roofs Around the Globe Using an Earth System Model. USC Civil and Environmental Departmental Seminar, Aug 2016. Oral presentation

Zhang J, Ban-Weiss GA. Overview and update on the research related to urban heat island at USC. Urban Heat Island/Extreme Heat Convening, organized by Climate Resolve & LA Mayor's Office of Sustainability, July 2016. Invited Speaker

Zhang J, Zhang K, Liu J, Ban-Weiss GA., Revisiting the Climate Impacts of Cool Roofs Around the Globe Using an Earth System Model. Los Angeles Environmental Forum, Aug 2016. Oral presentation

Zhang J, Liu J, Tao S, Ban-Weiss GA. Long-range transport of black carbon to the Pacific Ocean and its dependence on aging timescale. NASA Kaufman Symposium. Jun 2016. Poster presentation

Zhang J, Zhang K, Liu J, Ban-Weiss GA. Revisiting the climate impacts of cool roofs around the globe using an earth system model. AGU Fall Meeting. Dec 2015. Poster presentation

Zhang J, Liu J, Tao S, Ban-Weiss GA. Transport of black carbon to the Pacific Ocean and its dependence on aging timescale. International Conference on Carbonaceous Particles in the Atmosphere. Aug 2015. Oral presentation

Zhang J, Liu J, Ban-Weiss GA, Tao S. Investigating the vertical distribution and source attribution of black carbon over the Pacific Ocean. AGU Fall Meeting. Dec 2014. Poster presentation

Zhang J, Liu J, Ban-Weiss GA, Tao S. Investigating the vertical distribution and source attribution of black carbon over the Pacific Ocean. AeroCom Meeting. Oct 2014. Poster presentation

HONORS AND AWARDS

“30 Under 30” Award, All-American Chinese Youth Federation	2022
Student Paper Award, Southern California Chinese American Environmental Protection Association	2018
Outstanding Research Assistant Award, USC (top 2/40 PhD students)	2016
Featured Research Assistant of the Month, USC	2016
Student Paper Award, Southern California Chinese American Environmental Protection Association	2016
CESASC scholarship, Chinese-American Engineers and Scientists Association of Southern California	2016
Viterbi School of Engineering Ph.D. Fellowship, USC	2015
Scholarship for Research Progress in the School of Physics (top 30/200 students), Peking University	2013
Gull Scholarship (4% of students), Peking University	2013
Tri-excellent Student Award (5% of students), Peking University	2013
Shenkeqi Scholarship (student with greatest progress in GPA), Peking University	2012
Tri-excellent Student Award (5% of students), Peking University	2012
Advanced Individual of Social Work, Peking University	2011

RESEARCH EXPERIENCE

California Air Resources Board

Riverside, CA

Manager

Nov 2022–Present

- Oversaw a team of six scientists and engineers to conduct original research projects, develop emissions inventory, and inform first-of-its-kind regulations aimed at promoting electric vehicles, reducing air pollution emissions, and combating climate change

Air Resources Engineer

Oct 2019–Oct 2022

- Developed and managed three research contracts to forecast light-duty vehicle sales and quantify the benefits of incentives (e.g., rebates for electric cars)
- Analyzed data of 1.4 billion trips provided by transportation network companies (e.g., Uber and Lyft) to estimate their greenhouse gas emissions per passenger mile traveled, which supported the rulemaking of Clean Mile Standard
- Estimated vehicle fuel economy using on-board diagnostic system’s data and presented findings to Executive Office
- Projected zero-emission vehicle (ZEV) market shares using California Energy Commission’s consumer choice models
- Performed air pollution emission modeling simulations to support Advanced Clean Cars II rulemaking
- Assessed on-road vehicle activity and emission factors to develop California’s official emission inventory model
- Summarized findings and policy implications in reports and presentations for various stakeholders (researchers, NPOs, companies, as well as federal, state, and local government agencies)

Department of Civil and Environmental Engineering, USC

Los Angeles, CA

Postdoctoral Researcher

Jun 2019–Dec 2019, Jun 2020–Sep 2020

- Led a project funded by the Los Angeles Department of Water and Power to estimate air pollutant emissions, concentrations, and resulting health impacts for various energy supply and consumption scenarios
- Collaborated with the Department of Computer Science at USC on utilizing machine learning techniques in weather prediction and attributing urban temperature variations to land use factors

Research Assistant

Aug 2014–May 2019

- Evaluated benefits and penalties of adopting “cool walls” (i.e., reflective and energy-saving walls) on climate and air quality for a project funded by the California Energy Commission
- Built WRF-Chem, a weather and air quality model, on a supercomputer and performed computational simulations
- Carried out extensive data analyses, using NCL and Python programming languages
- Estimated the impacts of adopting reflective “cool roofs” on urban, continental, and global climates
- Collaborated with Lawrence Berkeley National Laboratory on experiments testing properties of “cool wall” materials
- Summarized findings in two chapters of a technical report and four peer-reviewed papers as the lead author
- Presented findings to different stakeholders (e.g., manufacturers, governmental agencies, and environmental groups) to inform building code and rule development for “cool roofs” and “cool walls”
- Mentored four PhD students on atmospheric modeling and scientific writing

Peking University

Beijing, China

Research Assistant, College of Urban and Environmental Sciences

May 2012–Aug 2014

- Implemented a physically-based parameterization of aerosol removal processes in a computational model for atmospheric chemistry, and optimized parameters to improve model performance against observations
- Quantified source-receptor relationships of black carbon among 13 regions across the globe
- Presented findings at three international academic conferences and in a peer-reviewed paper

Research Assistant, Department of Atmospheric and Oceanic Sciences

Sep 2013–Jun 2014

- Conducted statistical analyses using observational data to investigate the influence of factors (e.g., wildfires and temperature) on ozone production in the Western U.S.
- Computed air parcel trajectories using Hybrid Single Particle Lagrangian Integrated Trajectories (HYSPLIT) model to track wildfire emissions

Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles

Los Angeles, CA

Research Intern

Jun 2013–Sep 2013

- Evaluated the performance of GEOS-Chem (an atmospheric chemical transport model) over the Tibetan Plateau against MODIS satellite remote sensing data and other observations, using statistical approaches

TEACHING EXPERIENCE

Department of Civil and Environmental Engineering, USC

Los Angeles, CA

Lecturer

Spring 2022 and 2023

- Taught the course “Air Pollution Fundamentals” covering emissions, transport and transformation of air pollutants, modeling methods, and control techniques
- Presented guest lectures for the course “Introduction to Environmental Engineering”

Department of Civil and Environmental Engineering, USC

Los Angeles, CA

Teaching Assistant

Fall 2016 and Spring 2018

- Lectured and led discussions for a course “Climate Change and Atmospheric Aerosols” covering climate science, greenhouse gas dynamics, and airborne particles
- Delivered lectures for a course “Environmental and Regulatory Compliance” covering NEPA/CEQA regulations and environmental impact assessments

National Science Foundation Outreach Program

Los Angeles, CA

Science Curriculum Development Helper

Jun 2015–Aug 2015

- Engaged two teachers at a high school in a disadvantaged community in my research projects
- Helped the teachers design classes to stimulate their students’ interests in science and technology

Joint Educational Project, USC

Los Angeles, CA

Teaching Volunteer

Oct 2014–Dec 2014

- Taught “Wearable Technology” to seventh grade students and designed class handouts & hands-on activities
- Inspired the students to be engineers and answered questions about my journey as a female scientist

GRANT-RELATED EXPERIENCE

Maternal And Developmental Risks from Environmental and Social stressors (MADRES) Center for Environmental Health Disparities at USC, Environmental Health Disparities Research Pilot Projects Program (tentatively awarded), *Assessing Health Disparities Arising from Air Pollutant Emissions Linked to Port-Related Activities: A Case Study of the Ports of Los Angeles and Long Beach*

My role: Principal Investigator

California Air Resources Board, *Forecasting Light-Duty Vehicle New Sales and Retention Rates*

My role: Contract manager

California Air Resources Board, *Measuring the Emissions and Socioeconomic Benefits of CARB’s Incentives and Regulatory Programs*

My role: Contract manager

California Air Resources Board, *UCLA Anderson Economic Forecast*

My role: Contract manager

National Science Foundation, *CAREER: Enhancing urban sustainability: an integrative approach toward synergistic solutions to reduce urban temperatures, air pollution, and water use in a changing climate*

My role: Proposal contributor

Los Angeles Department of Water and Power, *LA 100% Renewable Energy Study*

My role: Project team member (leading the emission inventory development)

California Energy Commission, *Solar-Reflective “Cool” Walls: Benefits, Technologies, and Implementation*

My role: Project team member (leading the climate and air quality benefits assessment)

REVIEWING/EDITORIAL EXPERIENCE

Serve as Topic Editor for journal *Atmosphere*

Serve as Review Editor for the Editorial Board of Quantitative Sustainability Assessment for *Frontiers in Sustainability*

Co-chair session “Extreme Heat: Vulnerability and Risk Assessment, Exposure Assessment, and Policy Implications Regarding the Adverse Effect of Extreme Heat on Health, Economy, and Natural Resources” at AGU 2021 Fall Meeting

Conducted more than 60 reviews for the following journals: *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, *Journal of Cleaner Production*, *Environmental Research Letters*, *Environmental Science & Technology*, *Environmental International*, *Science of the Total Environment*, *Atmospheric Chemistry and Physics*, *Atmospheric Environment*, *Building and Environment*, *Journal of Geophysical Research – Atmosphere*, *Solar Energy*, *Atmosphere*, *Climate Dynamics*, *Urban Climate*

OTHER PROFESSIONAL EXPERIENCE

Air & Waste Management Association, West Coast Section Los Angeles, CA
Board Secretary Aug 2019–Present

- Coordinated with 40 speakers of annual conferences and streamlined the process of collecting presentations
- Organized Job hunting and career development workshops - invited speakers, distributed the workshop information to 20 universities, and presented to about 40 students

AI List Capital Los Angeles, CA
Project Leader Jun 2017–Oct 2017

- Led 8 experts to research opportunities of applying artificial intelligence in the energy (cleantech) industry
- Selected companies that are worthy investments and presented findings at a forum to 300 potential investors

Science and Policy Center, The Nature Conservancy Beijing, China
Intern Jan 2014–Jun 2014

- Reviewed IPCC and EPA’s reports on climate adaptation strategies for freshwater, coasts, and agriculture
- Summarized the best practices for climate adaptation in developed countries and presented findings to supervisor

LEADERSHIP, SERVICE, AND ACTIVITIES

Chinese-American Engineers and Scientists Association of Southern California Los Angeles, CA
Board Director Jan 2021–Present

PlusYoou, an NPO fostering innovations and empowering startups Los Angeles, CA
Board Director, Business Development Manager Aug 2016–Aug 2019

- Pitched and invited 30+ leaders in different industries as speakers and raised \$5,000 for 10+ events
- Organized and emceed 2 Southern California Innovation Forums and 4 startup entrepreneurial training workshops
- Interviewed 10 successful entrepreneurs and wrote 2 articles on their companies

Kedao, an international NPO promoting sustainable development in China Remote Work
Director of Strategy, Editor, Writer *May 2016–Jan 2018*

- Produced 2 articles and edited 8 articles on popular Chinese websites to promote sustainability and environmental protection, which were read more than 10,000 times
- Managed a team of 11 environmental professionals to investigate profitable business models for Kedao

Women in Science and Engineering, USC Los Angeles, CA
Mentor *Sep 2017–Dec 2017*

- Inspired an undergraduate student with my experience as a female researcher

Summer Smasher Program, Viterbi Startup Garage, USC Los Angeles, CA
Trainee *Jun 2017–Aug 2017*

Summer Smasher program teaches students to think like an entrepreneur and work in a technology startup

- Worked at “Element 16,” a company offering innovative heat storage solutions that reduce waste heat and save energy
- Contacted 13 suppliers of absorption chiller and summarized information gained from cold calls and emails, which helped the company build prototype
- Attended classes on entrepreneurship, and pitched “Element 16” to 20 investors/entrepreneurs

“Nine Angry People” theater Beijing, China
Actress, Executive Producer *May 2013–May 2014*

- Acted as the lead actress in four shows for 400 people and coordinated logistics as the executive producer

Student Union of the School of Physics, Peking University Beijing, China
Vice President *May 2011–May 2012*

- Led 100 members in 6 departments to organize activities including the New Year Gala
- Recruited 6 department heads and attracted 80 new members

SKILLS AND RESEARCH TOOLS

Programming: Python (Numpy, Pandas, Matplotlib), SQL, C, Fortran

Data processing: NCL, IDL, Matlab, ArcGIS, Labview, MySQL

Operating system: Linux, Windows

Atmospheric models: Weather Research and Forecasting (WRF), WRF-Chem, Model for Ozone and Related chemical Tracers (MOZART), Community Earth System Model (CESM), Hybrid Single-Particle Lagrangian Integrated Trajectory model (HYSPLIT)

Emissions models: Emission FACtor (EMFAC), Motor Vehicle Emission Simulator (MOVES)

Vehicle Choice models: Corporate Average Fuel Economy (CAFE) Compliance and Effects model, CEC’s commercial and personal vehicle choice models