

Yuanjian Zhang

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EDUCATION

Peking University, Beijing, CN

Bachelor of Science in Environmental Science

Sep. 2019 - Jul. 2023 (expected)

- Research Interests: Air Pollution Modeling, Exposure Assessment, Atmospheric Chemistry
- GPA: 3.68/4.0 (average before 4th grade)

RESEARCH EXPERIENCE

Georgia Institute of Technology, Atlanta, GA

School of Civil and Environmental Engineering

Laboratory for Atmospheric Modeling, Diagnostics and Analysis, LAMDA(λ)

(Prof. Armistead Russell's Group, co-advised by Prof. Amir Hakami [Carleton University])

RA: CO₂-reduction's co-benefit quantification for China using CMAQ-Adjoint

Aug. 2022 - Present

- Learnt the concept of Adjoint model and its implementation
- Evaluated CMAQ-Adjoint model forward running results with observation in China

Peking University, Beijing, CN

College of Urban and Environmental Sciences

Numerical Modeling of Environmental Pollution (Course Work, Advised by Prof. Jianmin Ma)

Course Work: Spatial and temporal analysis of North-China air quality in summer

Mar. 2021 - Jun. 2021

- Learnt to use CMAQ model to simulate regional air quality
- Conducted time-series evaluation of modeling results with observation in simulated region
- Compared the performance of WRF-Chem and CMAQ modeling on North-China air quality in summer

Peking University, Beijing, CN

College of Urban and Environmental Sciences

Laboratory for Earth Surface Processes (Prof. Shu Tao's Group)

Leading: Sector-wise simulation of air quality and its health impact in South Asia

Oct. 2020 - Present

- Integrated PKU-Fuel emission inventory for model input and analyzed data with MATLAB and R
- Evaluated modeling results with observation, satellite assimilation and literature data
- Simulated contributions of sector-wise emission to ambient PM_{2.5} in South Asia with WRF-Chem model
- Estimated the contribution of animal and agricultural waste burning to ambient PM_{2.5} in India

ACADEMIC PROGRAM & AWARDS

Academic Programs:

- POPs and CEACs in the Arctic under Climate Change [IAS-HIT-eSummer] *Jul. 2021 - Aug. 2021*
- China's National Basic Discipline Elite Cultivation Program *Oct. 2020 - Apr. 2023 (expected)*

Awards:

- Award for Academic Excellents [Peking University] *Dec. 2021*
- Silver medal for 32th Chinese Chemistry Olympiad [32th CChO] *Dec. 2018*

SKILLS

Program Skills: MATLAB, Python, R, QGIS, TensorFlow

Numerical Models: WRF-Chem, CMAQ

Language: TOEFL 108, GRE 332 + 3.5