

# Haotian Cai

www.linkedin.com/in/caihaotian | (+1)970-412-3199 | haotian.cai@usc.edu

## RESEARCH INTERESTS

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Drinking water disinfection byproducts. Analytical chemistry.

## EDUCATION

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- Ph.D. In Progress  
University of Southern California, CA  
· Major: *Environmental Engineering*
- Master of Science 2021  
Northwestern University, IL  
· Major: *Civil and Environmental Engineering*
- Bachelor of Science 2019  
Colorado State University, CO  
· Major: *Environmental Health*
- Bachelor of Science 2019  
Anhui University, China  
· Major: *Environmental Science*

## PUBLICATION

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- Fu, H., **Cai, H.**, & Gray, K. A. (2023). Metal oxide encapsulated by 3D graphene oxide creates a nanocomposite with enhanced organic adsorption in aqueous solution. *Journal of Hazardous Materials*, 444, 130340.

## ACADEMIC ACTIVITIES

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- MASTER'S THESIS JAN. 2020 - DEC. 2020  
· Research about environmental application of Core (Metal Oxide) – Shell (Graphene Oxide) Composite. Manufactured and characterized the new materials and tested the environmental performance.
- WATER ENVIRONMENT FEDERATION STUDENT DESIGN COMPETITION SEPT. 2020  
· Designed novel wastewater treatment system. Team up and finished the Water Environmental Federation Student Design Competition. This design is the third-place winner.
- ILLINOIS WATER ENVIRONMENT ASSOCIATION STUDENT DESIGN COMPETITION MAR. 2020 - APR. 2020  
· Team up and designed novel wastewater treatment system. This design was the first-place winner.
- RESEARCH INTERNSHIP DEC. 2018 – JAN 2019  
· Research on mercury distribution in a frozen lake, Wuliangshuai Lake, China. Sampled and tested water quality in this lake. This internship is completed with Inner Mongolia Agricultural University