

Yuang Chen

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EDUCATION

College of Urban and Environmental Sciences, Peking University, Beijing, China

Sep 2018– Present

B.S. in Environmental Science, Overall GPA: 3.71/4.0 Ranking: 2/40

(Expected to graduate in 2022)

Core Courses: Risk Assessment of Environmental Health (97) / Advanced Mathematics (92) / Environmental Chemistry (90)

National School of Development, Peking University, Beijing, China

Sep 2020– Present

Minor in Economics, Core Courses: Intermediate Microeconomics (96) / Environmental Economics (92)

PUBLICATIONS

- **Yuang Chen**, Qianru Zhang, Xingrui Cai, Haoran Zhang, Huiming Lin, Chaoyue Zheng, Zhanqiang Guo, Shanying Hu, Long Chen, Shu Tao, Maodian Liu, Xuejun Wang. **Rapid increase in China's industrial ammonia emissions: evidence from unit-based mapping.** *Environmental Science & Technology*, in peer review

RESEARCH EXPERIENCES

I. Peking University, College of Urban and Environmental Sciences (CUES)

Industrial Ammonia (NH₃) Emission Inventory Compilation

Jun 2019– Present

Research Assistant | Advisor: [Xuejun Wang](#), Professor at Peking University

- Established an unprecedented high-spatial-resolution dataset of China's industrial NH₃ emission using up-to-date measurements of NH₃ and point source-level information covering seven major industries and 26 subdivided processes.
- Raised the question of ammonia escape from the application of denitration process in cement plants and coal-fired power plants, followed by months of field investigations and communication with project managers and workers.
- Revealed that unlike other major air pollutants, China's industrial NH₃ emission control is still in a critical period, and stricter NH₃ emission standards and innovation in pollution control technologies are highly desirable.
- With a first-authored paper currently under review on journal *Environmental Science & Technology*.

Glacial Mercury Release from Tibetan Plateau under Global Warming

Nov2019–Dec 2020

Research Assistant | Advisor: [Xuejun Wang](#) & [Qianggong Zhang](#)

Wang is Professor at Peking University, Zhang is Professor at Institute of Tibetan Plateau Research

- Went to Lhasa, Nam Co and Linzhi in Tibetan Plateau for glacial mercury sample collection. Overcame altitude sickness and the burden of the equipment, and learned how to organize a sample collection trip.
- Developed a method of estimating the future release of heavy metal from high mountain glaciers by combining sample collection and remote sensing data with mass-balance model and representative concentration pathway (RCP) model.
- With a co-authored paper ready to submit to *Journal of Hazardous Materials*.

II. Project Collaborations with International Institutes

SWITCH-China Model Development | Stony Brook University

Feb 2021– May 2021

Research Assistant | Advisor: [Gang He](#), Assistant professor at Stony Brook University

- Participated in the building process of Gridpath (a platform built mainly with Python which is aimed at running Energy models with user-friendly UI instead of codes) and tested its capability for different scenarios.
- Grasped the principal and optimization method of SWITCH model, which is a high-resolution power system capacity expansion model focusing on the impact of variable renewable energy.
- Dealt with systematic and complex coding with Python, and converted input data of SWITCH to that of Gridpath with SQL.

Additionality of Renewable Energy Purchase | Carnage Mellon University

Apr 2021– Aug 2021

Research Assistant | Advisor: Valerie Karplus, Associate professor at Carnage Mellon University

- Assessed how subjective and biased is the additionality of investment in renewable energy from multinational companies (MNCs), based on clean development mechanism (CDM) methodology.
- Established economic dispatch model for one hypothetical wind farm in China with national and provincial policies and taxes considered, and assessed the sensitivity caused by operation cost, curtailment rate and project lifespan.
- Collected and analyzed sustainability reports of more than 100 MNCs together with their carbon neutrality commitments, concluded that most of the MNCs haven't claimed "additionality" yet.

Life Cycle Assessment of Copper Recycling | Yale University

Aug 2021– Present

Research Assistant | Advisor: Julie Zimmerman, Professor at Yale University

- Established process-based life cycle assessment (LCA) model for copper recycling in the openLCA software.
- Reached out to enterprises to update the process data, aimed at taking technology innovation into the model.
- Simulated the future copper demand and overall economic and energy development based on statistical yearbooks.
- Final presentation of results on group meeting.

LEADERSHIP AND ACTIVITIES

Student Union, College of Urban and Environmental Sciences | President

Jun 2020– Jun 2021

- Organized Cultural Festivals aimed at spreading environmental and geological knowledge to campus students, and attracted official media's attention.
- Held a Dancing Party that involved over 1,500 students from ten colleges.
- Named Excellent Student Cadre of the year 2021.

AWARDS AND SCHOLARSHIP

2020-2021	CASC Scholarship Excellent Student Cadre The First Prize in Challenge Cup
2019-2020	Leo Koguan Scholarship Merit Student The Third Prize in Challenge Cup
2018-2019	The Third Prize of Peking University Scholarship Merit Student

SKILLS

Models: SWITCH energy model, Wind Energy Integration model, THEMIS hybrid LCA model

Programming Languages: Python, Linux, R, HTML, SQL, Git

Software: ArcGIS, MATLAB, WRF-Chem, Xshell, OpenLCA

Languages: English (fluent), Mandarin (native), German (primary)

Standard English Tests: GRE: Verbal – 156, Quantitative – 170, Analytical Writing – 4

TOEFL: Total 115 (Reading 29, Listening 30, Speaking 26, Writing 30)