

LIYUAN CHEN

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PROFESSIONAL SUMMARY

Currently pursuing a doctoral degree in environmental and energy systems (Expected to graduate in July 2025). Adept at conducting chemical and mathematical modelling, data synthesis and analysis. Extensive background in life-circle assessment, carbon dioxide storage and utilisation, low-carbon energy usage, tackling climate change, supporting sustainable development, and environmental pollution treatment research.

EDUCATION

University of Oxford - Oxford, United Kingdom 10/2021 - Current

Doctor of Philosophy: Systems Engineering-Energy Storage (Supervisor: Prof. Aidong Yang)

- Research about Life Cycle Assessment for carbon dioxide storage materials and policies
- Member of University of Oxford MPLS Division science together programme
- Received Lady Margaret Hall Academic Development Fund

Peking University - Beijing, China

09/2018 - 07/2021

Master of Engineering: Mechanics, Energy and Resource Engineering (Supervisor: Prof. Xidong Wang) - Distinction (GPA: 3.6/4.0)

- Dissertation: Preparation and defluoridation effectiveness of Honeycomb Ceramics @Nanometre Aluminium oxide absorbent material
- Member of Peking University International Organization Talents Programme
- Awarded Graduate Students Academic Scholarship
- Research Assistant of Beijing Innovation Centre for Engineering Science and Advanced Technology, Peking University

Guangxi University - Nanning, China

09/2014 - 07/2018

Bachelor of Engineering: Environmental Engineering - Distinction (GPA: 4.1/5.0)

- Dissertation: Carried out a study on activated semi-coke modified by CuO nanostructures, supervised by Prof. Zebin Yu
- Awarded National Scholarship, Principal Scholarship, Outstanding Graduates of Guangxi Zhuang Autonomous Region
- Elected Captain of Guangxi University Mathematical Modeling Association

PUBLICATIONS

- Chen, L., Yang, A. (2025). Assessing the net carbon removal potential by a combination of direct air capture and recycled concrete aggregates carbonation. *Resources, Conservation and Recycling*, 212, 107940.
- WANG Shi, CHEN Liyuan, SUN Xiang, et al (2017). From rainwater and sewage interception to separation system combined with low impact development reconstruction in urban built-up area: A water quality constrained scenario stimulation and programming. *China Environmental Science*, (10): 383 -392

WORK HISTORY

Summer intern | China International Capital Corporation (CICC) - Beijing, China 07/2024 - 08/2024

- Researched the Contracts for Difference (CfD) mechanism in renewable energy market, using the UK electricity market reform as a case study, with a focus on China's renewable energy investment and subsidy policies.
- Proficient in Bloomberg, iFind, and Wind for data gathering; skilled in Python and Excel for market analysis and forecasting. Familiar with the CfD platform IG.

Project Intern | China International Capital Corporation (CICC) - Beijing, China 11/2023 - 05/2024

- Spearheaded research and analysis within new energy and power sector, focusing on industry trends, policy evolution, and market dynamics across China, Europe, America, and Australia.
- Authored comprehensive reports on new energy market, including detailed evaluations of China's electricity pricing policy changes and development of electricity markets in Europe, America, and Australia.
- Developed and maintained foundational framework for CGI's New Power System Database, ensuring data accuracy and relevance for 2023.
- Provided crucial data and insights for project feasibility studies, supporting strategic decision-making and policy development.

Engineering Research Intern | Environmental Defense Fund - Shenzhen, China

- Climate Change Corps project, cooperate with Walmart China

05/2021 - 09/2021

- Calculated values for Walmart China's 380+ stores (Hyper and Sam's Club) energy consumption and determined how to reduce greenhouse gas emissions and save energy.
- Worked with sustainable development teams to design Walmart's Zero-emission roadmap, carbon trading, and carbon footprint accounting project.

Research Intern | National Development and Reform Commission Energy Institute - Beijing, China 09/2019 - 06/2020

- Presented key metrics of policy research on fossil fuel energy transition, providing thorough supporting documentation and data for coal energy trade market.
- Utilised developed problem-solving skills to find innovative research solutions for predicting future energy consumption under less-coal scenario problems.
- Performed over 100 literary searches to generate high-quality literary reviews in support of research projects.

Summer Research Intern | Peking University - Tianjin, China 06/2019 - 08/2019

- Peking University Students Summer Social Practice Project, cooperate with Tianjin Chase Sun Pharmaceutical Co. Ltd.
- Created new designs for industrial wastewater treatment project which contains gelatin.

Summer Research Intern | Tsinghua University - Yiyang, Hunan, China 06/2018 - 09/2018

- Tsinghua University-Apple Summer Institute for China's Green Innovators Project, cooperate with Ecology and Environment Department of Hunan
- Conducted desk-based research focused on Urban flooding and ecological issues. Collected qualitative and quantitative rainfall and urban underground pipes data with rigorous methodology. Analysed statistical data using ArcGIS.
- Generated research interview questions, transcribing and summarising results. Solve the problem through both technology and policy.

RESEARCH ACTIVITIES

- Delivered presentation and poster on the 'Modelling carbonation of recycled concrete aggregate for storing carbon dioxide' at The 11th International Conference on Sustainable Development in Building and Environment in Finland, 2023.
- Delivered poster on the 'The potential of storing carbon dioxide in cementitious construction materials' at The 11th International Conference on Life Cycle Management in Lille, France, 2023.
- Delivered presentation on The economic and technical support from United Nations: Developing countries tackle climate change at Global Youth Summit on Net-Zero Future, the third GAUC Graduate Forum in 2021.
- Delivered presentation and poster on the 'Design of an innovative scheme for Guangxi Villages' poverty alleviation at Global Youth Summit on BELT AND ROAD Global Youth Leaders' Summit in 2019.
- Delivered a presentation on 'Scenario design and simulation of composite schemes for clear source, interception, and sponge city reconstruction in urban built-up areas under water safety and water quality ecology constraints' at the National Youth Ecologists Symposium in Aug, 2017.

AFFILIATIONS

- Membership of the Institution of Civil Engineers (ICE).
- Member of Oxfordshire Watlington Climate Action Group in 2022.
- Member of APRU Student Global Climate Change Simulation Project in 2021.
- Member of Horizon Global Youth Development Program in 2021.
- Member of the International Fund for China's Environment Green Leader Training Program in 2019.
- Certified Chief Operations Officer, SEE LEVEL International Education Corporation - April 2022 to Present.

SKILLS

- Coding language: MATLAB, Python, R
- Professional software: Sima Pro, Aspen Plus, Auto-CAD, ArcGIS
- Microsoft Office: Word/Excel/PowerPoint /Visio, Origin, Photoshop
- Data gathering, review and analysis

LANGUAGES

Chinese (Mandarin) Native language

English C1

Advanced
TOEFL overall score 111

HOBBIES

Swimming, Scuba diving, Kayak, Canoes, Paddleboard sports, Hiking, Board role-playing games.