

# Ziyu Wang

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## EDUCATION

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**Concordia University** Montreal, Canada

Doctor of Philosophy (Ph.D.), Civil Engineering, *GPA: NA* Expected Dec. 2028

- Research Topics: E-Waste Utilization and Resource Recovery; Environmental Risk Assessment and Management for Li-Ion Batteries; Low Carbon Waste Systems and Technologies; Building and Infrastructure Sustainability.
- Relevant Coursework: 'Greenhouse Gases and Control', 'Fate and Transport of Contaminants in the Environment', 'Unit Operations in Environmental Engineering'.

**Imperial College London** London, UK

Master of Science (M.Sc.), Machine Learning and Data Science, *GPA: NA* Expected May 2028

- Relevant Coursework: 'Exploratory Data Analytics and Visualisation', 'Bayesian Methods and Computation', 'Deep Learning', 'Unstructured Data Analysis', 'Big Data: Statistical Scalability with PySpark'.

**University of Victoria** Victoria, Canada

Master of Engineering (M.Eng.), Industrial Ecology: *GPA: 8.00* Nov. 2024

- Relevant Coursework: 'Industrial Symbiosis, Biomimicry and Green Chemistry', 'Urban Metabolism and Sustainable Cities', 'Methods, Tools and Data for Industrial Ecology', 'Climate Strategy'.

**Concordia University** Montreal, Canada

Bachelor of Engineering (B.Eng.) **with Distinction**, Civil Engineering: Option Environmental, *GPA: 3.54* May 2023

- Relevant Coursework: 'Probability and Statistics in Engineering', 'Environmental Impact Assessment', 'Numerical Methods in Engineering', 'Solid Waste Management', 'Geo-Environmental Engineering'.

**Stanford University** Stanford, US

Professional Certificate, Energy Innovation and Emerging Technologies Program (EIET) Jan. 2022

- Coursework: 'Planning for a Sustainable Future with Wind', 'Water and the Sun, Economics of the Clean Energy Transition', 'Building Energy Efficiency: Technology, Policy and Finance', 'Energy Storage'.

## AWARDS AND RECOGNITION

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**Dominic D'Alessandro Fellowship** 2025

Concordia University

**Concordia University Conference and Exposition Award** 2025

Concordia University

**International Tuition Award of Excellence** 2025

Concordia University

**Concordia Undergraduate Student Research Award (CUSRA)** 2022

Concordia University

## PUBLICATIONS

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### Journal Papers

[J1] Wang, Z., Chen, Z., An, C., 2023. A review on solid waste management in Canadian First Nations communities: Policy, practices, and challenges. *Cleaner Waste Systems*, 4, 100074. <http://doi.org/10.1016/j.clwas.2022.100074>.

[J2] Wang, Z., Chen, Z., An, C., 2023. Improving solid waste management in remote First Nations communities through inventory-theory-based optimization. *Canadian Journal of Civil Engineering*, 51(1), 27-46. <https://doi.org/10.1139/cjce-2023-0320>.

[J3] Wang, Z., Lu, Z., Ma, J., Huang, G., & An, C., 2024. Assessing the water metabolism of coastal urban areas based on the water mass balance framework across time periods: A case study of cape town, South Africa. *Ocean & Coastal Management*, 259, 107434. <https://doi.org/10.1016/j.ocecoaman.2024.107434>.

[J4] Wang, Z., Huang, G., & An, C., 2025. Recyclability and Recovery of Carbon from Waste Printed Circuit Boards within a Circular Economy Perspective: A Review. *Journal of Environmental Management*, 375, 124266.  
<https://doi.org/10.1016/j.jenvman.2025.124266>.

### Conference Publication

[C1] Wang, Z. An inexact inventory-theory-based optimization model for solid waste management in remote First Nations communities. PEOPLE 2023. Montreal, QC. August 7-11, 2023.

[C2] Wang, Z. A stochastic inexact mixed-integer fractional model for optimizing solid waste management in island communities. CSCE Winnipeg 2025. Winnipeg, QC. May 28-31, 2025.

[C3] Wang, Z. Life Cycle Assessment of Waste Printed Circuit Board Management in Cold Region Island Communities. CSCE Winnipeg 2025. Winnipeg, QC. May 28-31, 2025.

### EXPERIENCE

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**Concordia University** Montreal, Canada  
Building, Civil and Environmental Engineering Department, Research Assistant Jan. 2025 – Now  
Research Topic: Environmental, social, and economic assessment of specialized waste management systems.

**Concordia University** Montreal, Canada  
Building, Civil and Environmental Engineering Department, Research Assistant May 2024 – Dec. 2024  
Research Topic: Assessment of the environmental risk in the coastal areas.

**Concordia University** Montreal, Canada  
Building, Civil and Environmental Engineering Department, Research Assistant Jan. 2023 – Apr. 2023  
Research Topic: An inexact optimization model for solid waste management in remote First Nations communities.

### CERTIFICATES

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#### Engineer-in-Training (EIT)

Professional Engineers and Geoscientists of the Province of British Columbia  
Credential ID: 247295

#### LEED Accredited Professional Building Design + Construction (LEED AP BD+C)

U.S. Green Building Council & Green Business Certification Inc.  
Credential ID: 11416291-AP-BD+C

#### WELL Accredited Professional (WELL AP)

International WELL Building Institute & Green Business Certification Inc.  
Credential ID: WELL-AP-0000092880

#### Certified Associate in Project Management (CAPM)

Project Management Institute  
Credential ID: 3204415

#### Envision Sustainability Professional (ENV SP)

Institute for Sustainable Infrastructure  
Credential ID: 47196

#### Excellence in Design for Greater Efficiencies Expert (EDGE Expert)

International Finance Corporation World Bank Group  
Credential ID: GP2-CAN-210913-1181

#### TRUE Advisor

Green Business Certification Inc.  
Credential ID: 0011416291

#### Lean Six Sigma Green Belt Professional (SSGI Green Belt)

Six Sigma Global Institute  
Credential ID: 44528676

#### MasterTrack Certificate-Construction Engineering and Management

University of Michigan

## **ADDITIONAL**

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### **Memberships:**

- Canadian Society for Civil Engineering Since 2021
- American Society of Civil Engineers (S.M.ASCE) Since 2020
- American Academy of Environmental Engineers and Scientists Since 2022
- Solid Waste Association of North America Since 2023
- Institute of Electrical and Electronics Engineers Since 2020
- Project Management Institute Since 2021
- International Society for Industrial Ecology Since 2025
- Institute for Sustainable Infrastructure Since 2021

**Applications:** MATLAB, AutoCAD, SimaPro, Python, JAVA, Origin, Microsoft Office: Word, Excel, and Power Point

**Language:** English, Mandarin, and French (Beginner)