Ye Zheng

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EDUCATION

Stanford University, California

MS, Sustainable Design & Construction - Energy

Sep 2021 - Jun 2023

Teaching Assistant & Grader: Energy Efficient Buildings (Fall 2022), Understand Energy (Spring 2022)

Relevant Coursework: Economics of Electricity Markets, Data Analytics for Urban Systems (R & Python), Optimization of Energy Systems (Julia), Life Cycle Assessment

McGill University, Montreal, Canada

BS, Civil and Environmental Engineering

Sep 2017 - May 2021

Relevant Coursework: Engineering Economics and Finance, Fundamentals of Programming (C++ & MATLAB)

ENERGY & ANALYTICAL INTERNSHIPS

U.S. Green Building Council, Washington, D.C.

LEED Technical Development Intern

Summer 2022

- Built dashboards to analyze and visualize spatial-temporal trends for LEED credits of 2600+ buildings in Excel & Tableau
- Extracted data for energy use, renewable energy credit, and on-site generation for 32 Net Zero Energy and Carbon buildings
- Conducted individual and group interviews with 10 senior colleagues to refine research questions and gain feedbacks
- Delivered a 5-minute intern showcase presentation to the leadership board and drafted a 15-page report for publishing

Student Energy, Canada and China

Regional Coordinator (for the Global Youth Energy Outlook Program)

Jan - Nov 2021

- Cleaned, analyzed, and visualized 4000+ survey responses to understand youth opinions on energy transition
- Communicated findings with regional insights and delivered a 10-min presentation to Asian Development Bank Youth Initiative
- Led a volunteer team of 50 youth to survey 4000+ youth and organized five 2-hour theme regional dialogues
- Established partnerships with 50+ organizations and obtained 700+ followers on a media platform in 4 months

CLIMATE & RESILIENCE RESEARCH

Stanford Sustainable Finance Institute, Stanford University

Student Researcher

Jan - May 2022

- Studied a Green Climate Fund blended financial framework for decentralized renewable energy businesses in Africa
- Delivered a 10-page report and a 15-minute presentation to the cohort of Stanford Finance Institute

Hazard Mitigation & Infrastructure Resilience Lab, McGill University

Research Assistant

May 2020 - Mar 2021

- Collaborated with a colleague to research state-of-the-art Bayesian statistics for natural hazards engineering
- Summarized and built a database for 200+ studies based on scales, methods, topic areas, and data resources
- Published a 25-page paper in the Journal of Natural Hazards as the first author: https://doi.org/10.1007/s11069-021-04729-2

ENERGY DESIGN PROJECTS

Net Zero Energy Office Building Design in Boston, Stanford University

Building Designer

Apr - Jun 2022

- Built Excel energy models to estimate building envelope loads, HVAC loads, and on-site solar generation
- Plotted categorical heating & cooling loads and iteratively improved designs (e.g., added occupancy schedule systems)
- Designed a rooftop solar PV system and constructed financial models for alternatives (i.e., sell to tenant vs green lease)
- Matched annual hourly Boston grid emission data with on-site renewable energy generation to estimate CO₂e emission

Household Electricity Consumption Behavior in London, Stanford University

Energy Analyst

Sep - Nov 2021

- Cleaned and aggregated 5600 households' data into desired groups of location and wealth and timeframes
- Implemented K-means clustering to identified 4 daily household load patterns in a year and provided hypothesis
- Constructed Linear Regression Models to predict hourly and daily electricity loads given weather and household types data
- Reduced Mean Square Error by 80% by using Linear Regression Model compared to a simple averaging model

SKILLS

Languages: English, French, Mandarin, Cantonese

Software: Tableau, R, MATLAB, C++, Julia, Microsoft (PowerPoint, Excel, and Word), Adobe InDesign, Revit & Dynamo **Sustainability Certificates & Programs**: LEED Green Associate Credential, BCG Climate & Sustainability Virtual Experience Program (10 hours), LIN CC Introduction to Sustainable Finance (15 hours), CCoM Youth Policy Innovation Team

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