

WEN XU

wenxuxmn@gmail.com | wendianaxu.github.io

EDUCATION

Northeastern University

Ph.D. student in Computer Science

Advisor: Lace Padilla, Ph.D.

September 2024 - Present

Middlebury College

B.A. in Psychology with Minor in Computer Science

Honors: *Phi Beta Kappa, summa cum laude*, Psychology Departmental Honor

Advisor: Michelle McCauley, Ph.D.

September 2019 - February 2024

RESEARCH EXPERIENCES

Khoury Data Visualization Lab, Northeastern University, MA

Graduate Researcher

- Conduct research on cognition and decision-making with data visualizations.

Principal Investigator: Lace Padilla, Ph.D.

September 2024 - Present

Visual Thinking Lab, Northwestern University, IL

Research Assistant

- Developed prototypes for a web-based interactive **designer's guide for creating effective dynamic data visualizations** using HTML, CSS, JavaScript, and Figma.
- Created interactive visualizations with Tableau to support data analysis for a behavioral experiment on **argument visualization and belief change**.

Principal Investigator: Steven Franconeri, Ph.D.

June 2023 - August 2023

Conservation Psychology Lab, Middlebury College, VT

Undergraduate Researcher

- Conducted an honors thesis on **concrete data visualization design for natural disaster risks**. Reviewed literature, designed and ran an online experiment, analyzed data, and prepared a first-authored manuscript.

Principal Investigator: Michelle McCauley, Ph.D.

January 2022 - February 2024

Child and Baby Lab, Uppsala University, Sweden

Research Assistant

- Ran behavioral experiments to examine **additive cognitive biases in problem-solving strategies** in adults from Sweden and the U. S. Analyzed data and co-authored a manuscript.

Principal Investigator: Joshua C. Juvrud, Ph.D.

August 2022 - December 2022

Vermont Center for Behavioral Science Research on Climate and the Environment,

Middlebury College, VT

Research Assistant

- Conducted an independent study on **how proximal climate impact information affects climate support for individuals with different value orientations**. Reviewed literature, designed and ran an online experiment, analyzed data, and prepared a first-authored manuscript.

Principal Investigators: Michelle McCauley, Ph.D., Julia Berazneva, Ph.D.

June 2022 - August 2022

Institute of Urban Environment, Chinese Academy of Sciences, China

Research Intern

- Conducted **complex network analysis on international plastic waste trade data** and authored a manuscript.

July 2018 - September 2021

- Modeled the **demand and recycling potentials of metal materials for lithium ion batteries** of electric vehicles in 90+ cities in China. Reviewed literature, collected data, developed models, and visualized results.
- Principal Investigators:** Wei-Qiang Chen, Ph.D., Peng Wang, Ph.D.

WORK EXPERIENCES

Point Taken Game, IL

May 2025 - August 2025

Product Lead

- Advanced an early prototype of a **gamified intervention for more respectful and thoughtful disagreements** into a polished product, managing a cross-functional team of 6 through critical design, testing, and launch phases. Drove the user feedback loop by conducting interviews and surveys, using insights to iterate on game mechanics.
- Led the on-time launch of the **print-and-play version by implementing and validating significant game mechanic improvements** that enhanced the overall user experience. Designed game instructions and components in Figma.
- As product manager for the **web version**, directed the **product roadmap and UX strategy**, leading the team to successfully launch its first workable version.

Jiezi SpeakGreen, China

August 2021 - January 2023

Co-founder and Content Writer

- Co-founded an **environmental and science communication initiative** that aims to increase connection with nature and encourage pro-environmental lifestyles among young people in urban China.
- Wrote **15+ environmental and science communication articles** for the initiative's public social media account, which has 600+ subscribers and received 4 million + views in total.

EcoDorms, Middlebury College, VT

January 2022 - May 2022

Student Organizer

- Organized weekly **sustainability-themed activities** in first-year dorms at Middlebury College with the goal of increasing environmental awareness and building community.
- Wrote weekly posts for an environmental education blog.

PUBLICATIONS

Xu, W., and Padilla, L. M. (2025). Shifting Expectations for Encoding Rules Mitigates Misinterpretation of Connected Scatterplots. *IEEE Transactions on Visualization and Computer Graphics*, Accepted.

Xu, W., Chen, W. Q., Jiang, D., Zhang, C., Ma, Z., Ren, Y., & Shi, L. (2020). Evolution of the global polyethylene waste trade system. *Ecosystem Health and Sustainability*, 6(1), 1756925.

Jian, X., Wang, P., Sun, N., **Xu, W.**, Liu, L., Ma, Y., & Chen, W. Q. (2022). Material flow analysis of China's five commodity plastics urges radical waste infrastructure improvement. *Environmental Research: Infrastructure and Sustainability*, 2(2), 025002.

CONFERENCE PRESENTATIONS

Xu, W., McCauley, M. (2024, March). *Does Local Information Motivate Climate Support? Value and Political Identity as Moderators*. [Poster presentation]. Eastern Psychological Association Annual Meeting 2024, Philadelphia, PA.

GRANTS AND FELLOWSHIPS

Middlebury College Academic Travel Grant (\$800)	2023
Middlebury College Senior Research Project Supplement (\$800)	2023
Middlebury College Center for Career and Internships Summer Internship Funding Grant (\$2000)	2023

SKILLS

Analysis and modeling: RStudio, Python, SPSS, MATLAB

Front-end and prototyping: JavaScript (D3.js, p5.js, React), HTML, CSS, Figma

Graphic design: Adobe Illustrator, Adobe Photoshop

Languages: Mandarin (native), English (fluent), Japanese (fluent)