

# SAMUEL WESTBY

Boston, MA

[westby.s@northeastern.edu](mailto:westby.s@northeastern.edu)

[samwestby.com](https://samwestby.com)

[github.com/samwestby](https://github.com/samwestby)

[linkedin.com/in/samwestby](https://linkedin.com/in/samwestby)

## EDUCATION

---

- Ph.D.** Northeastern University, *Network Science* Sep 2020 – May 2025  
Dissertation: “Focused and Panoramic Perspectives on the Future of Work”  
Advisor: Alicia Sasser Modestino
- BS** University of Wisconsin-Madison Sep 2016 – Dec 2019  
**BS Mathematics, BS Psychology** with Honors  
Minor in *Computer Science*, member of Iceberg Improv Comedy

## RESEARCH EXPERIENCE

---

- Graduate Research Assistant** Sep 2020 - Present  
Northeastern University, *Boston, MA*  
Advisor: Alicia Sasser-Modestino
- I combine data science and social science to rigorously understand industries and pursue applications for improving collective intelligence.
  - I have worked on Bayesian models of human behavior and have conducted and run in-person experiments.
  - *Topics*: Future of Work, Human-Agent Teamwork, Theory of Mind
- Undergraduate Research Assistant** Sep 2018 – Dec 2019  
Austerweil Lab, *Madison, WI*  
Advisor: Joseph Austerweil
- Used recurrent neural networks and Hawkes Processes to predict movie box office revenues using Reddit activity (keras, pandas, numpy).
  - Created a pipeline to aid in the creation and validation of human mobility datasets (opencv, pandas, numpy) [[github](#)].
- Undergraduate Research Assistant** Sep 2018 – Dec 2019  
Center for Healthy Minds, *Madison, WI*  
Advisor: Daniel Grupe
- Wrangled and visualized Fitbit data (numpy, pandas, matplotlib, bokeh) for a project studying the effect of mindfulness training has on reducing PTSD symptoms [[github](#), [paper](#)].

## TEACHING EXPERIENCE

---

- Northeastern University, Boston, MA** Jan 2023 – May 2023  
**Instructor**, DS2001 – Data Science Practicum
- I instructed a practicum for novice programmers learning Python through the lens of data science using hands-on projects and guided instruction.
- University of Wisconsin, Madison, WI** Sep 2019 – Dec 2019  
**Co-Instructor**, Counseling Psychology
- I co-instructed a seminar for first-year students which served as an introduction to UW.

## PUBLICATIONS

---

### *Publications*

**Westby, S.**, Radke, R. J., Riedl, C., & Welles, B. F. (2024). How Voice and Helpfulness Shape Perceptions in Human–Agent Teams. *Computers in Human Behavior: Artificial Humans*, 2(2), 100101. [[link](#)]

Duan, Z., Yang, Z., **Westby, S.**, Riedl, C., Welles, B. F., & Radke, R. J. (2024). Large Language Models for Automatic Milestone Detection in Group Discussions. *arXiv preprint arXiv:2406.10842*. [[link](#)]

Lyu, W., Bolt, D. M., & **Westby, S.** “Exploring the Effects of Item-Specific Factors in Sequential and IRTree Models,” *Psychometrika*, 2023: 1-31.

**Westby, S.** and Riedl, R., “Collective Intelligence in Human-AI Teams: A Bayesian Theory of Mind Approach,” *Proceedings of the Thirty-Seventh AAAI Conference on Artificial Intelligence*, Feb. 7-14, 2023. [[link](#)]

### *In Preparation*

**Westby, S.**, Sasser Modestino, A., “The Impact of Generative AI on Employer Hiring Practices for Software Developers,” *In Preparation*

## SERVICE

---

### **Data Scientist**

June 2022 – October 2022

Cambridge School Volunteers, *Cambridge, MA*

- Organized historical volunteer data and create improvement in data collection
- Analyzed historical volunteer data to improve volunteer recruitment and management

### **Judge**

Feb 2021 & 2022

Consortium for Mathematics and Its Applications

- First round judge for the COMAP mathematical modeling competition in the Network Science category.

### **Warehouse Organization**

Sep 2020 – Jan 2021

Fort Atkinson Food Pantry, *Fort Atkinson, WI*

## SKILLS AND INTERESTS

---

**Technical:** Python (pandas, numpy, matplotlib, networkx, pyspark), C#, Git, SQL, Bayesian modeling

**Research:** Public Speaking, Causal Inference, Bayesian Modeling, Econometrics, Research Design

**Interests:** cycling, bikepacking, video creation ([my cycling Instagram](#), 70k followers)