

SAMUEL WESTBY

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EDUCATION

Ph.D. Northeastern University, *Network Science* Sep 2020 – Aug 2024
Dissertation: “The Future of Teamwork: AI-Assisted Cooperation”

BS University of Wisconsin-Madison Sep 2016 – Dec 2019
BS Mathematics, BS Psychology with Honors
Minor in *Computer Science*

RESEARCH EXPERIENCE

Graduate Research Assistant Sep 2020 - Present
Northeastern University, *Boston, MA*

- I combine mathematics, computer science, and social science to pursue applications for human-AI teams such as improving collective intelligence, reducing bias, and measuring theory of mind.
- *Topics:* Human-Agent Teamwork, Team Performance, Bayesian Modeling, 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) [[github](#)].

TEACHING EXPERIENCE

Northeastern University, Boston, MA Jan 2023 – Present
Instructor, DS2001 – Data Science Practicum

- I instruct a practicum for novice programmers learning Python through the lens of data science using hands-on projects and guided instruction.

YouTube Jan 2022 – Present
Content Creator, [youtube.com/samwestbytech](https://www.youtube.com/samwestbytech)

- I deliver Python and Raspberry Pi tutorials to an audience of over two thousand subscribers.

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

Conference Papers

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 [[arxiv link](#)]

Works in Preparation

Westby, S., Ramakrishnan, A., Pandey, A., and Borkin, M., “Visualizing Talk Time in Online Video Conferencing.”

Westby, S., Radke, R., Riedl, R., Foucault-Welles, B., “Helpfulness and Humanness in Human-Agent Teamwork”

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.

Assistant

Sep 2020 – Jan 2021

Fort Atkinson Food Pantry, *Fort Atkinson, WI*

HONORS AND AWARDS

L & S Honors Summer Research Grant

2019

SKILLS AND INTERESTS

Technical: Python (pandas, numpy, matplotlib, network, keras, opencv), Java, iOS app development, Git, BASH, SQL

Interests: running, data science for social good, tutorials