Si Wu 吴斯

siwu1@bu.edu | LinkedIn: Si Wu | Personal website

RESEARCH INTERESTS

Chinese politics, American politics, gender, race and class, political behavior, public opinion, media, immigration, data science

EDUCATION

• Boston University, PhD in Political Science, Boston, MA.

Expected May 2025

• Northeastern University, MA in Journalism, Boston, MA.

Jan. 2018 – May 2020

• Durham University, Postgraduate Certificate in Education, Durham, U.K.

Sept. 2016 - June 2017

• Imperial College London, BSc in Physics, London, U.K.

Sept. 2013 - June 2016

PUBLICATIONS

Geometry of Graph Partitions via Optimal Transport (October 2020). *SIAM Journal on Scientific Computing*. (With Tara Abrishami, Nestor Guillen, Parker Rule, Zachary Schutzman, Justin Solomon, and Thomas Weighill.) ArXiv: 1910.09618.

• Key words: political districting plans; partitions; optimal transport; network flows.

Democrats 'went low' on Twitter leading up to 2018 (February 2019). Roll Call. (With Aleszu Bajak).

• Key words: Twitter data; sentiment analysis; machine learning; Senate candidates.

FELLOWSHIPS & AWARDS

Hariri Institute for Computing at Boston University, Graduate Student Fellow Award	2020
Boston University, Dean's Fellowship	2020-2021
Northeastern University, Graduate Student Scholarship	2018-2020

WORK EXPERIENCE

Research Assistant, Boston University

July 2020 - Aug. 2020

- Researched for Professors Maxwell Palmer and Dino Christenson.
- Collected Twitter data, scraped the web, and analyzed districting plans and financial donations.

Data Visualization Intern, Harvard Data Science Initiative

Sept. 2019 - Dec. 2019

- Developed data visualizations to effectively communicate data science concepts.
- Helped with conference planning and website design for the Harvard Data Science Review Inaugural Symposium.

Data Science Research Fellow, MIT/Tufts University

June 2019 - Aug. 2019

- Researched for the Metric Geometry and Gerrymandering Group (MGGG Redistricting Lab).
- Coauthored "Geometry of Graph Partitions via Optimal Transport" in SIAM Journal on Scientific Computing.
- Compiled figures with census data and GIS shapefiles by applying math techniques such as Markov Chain Monte Carlo, multiobjective optimization, transport distances and network.
- Developed JavaScript projects for data visualization and outreach.

Researcher, Northeastern's School of Journalism

April 2018 - May 2019

- Collected Twitter and Reddit data with Python and R.
- Applied machine learning techniques on tweets from midterm election candidates to predict positive/negative sentiment.
- Wrote articles on machine learning, data journalism, and augmented reality.

Teaching Assistant, Northeastern University

Sept. 2018 - Nov. 2018

- Taught students how to write leads and nut graphs in news stories.
- Assisted students on Associated Press style of writing and grammar.

PRESENTATIONS

Northeastern University Visualization Consortium (NUVis)

Dec. 2018

SERVICE

Hariri Institute for Computing, Boston University

2020 - 2021

• "Did you know you could...?" series co-coordinator and host

MEDIA COVERAGE

Hariri Institute for Computing News, Boston University

April 2021

• "Graduate Student Fellow Hopes to Apply Data Journalism Skills to Study Inequalities"

College of Arts, Media and Design News, Northeastern University

Nov. 2019

• "Si Wu, Journalism Graduate Student, Uses Data to Help Others Understand Political Redistricting"

News@Northeastern, Northeastern University

March 2019

• "Democrats who won 2018 midterms were more negative than Republicans on Twitter, research finds"

SKILLS

- Languages: English (fluent), Chinese (native).
- Computing Skills: Python, R, GIS, JavaScript, Machine Learning, HTML, CSS, and LaTeX.
- Software: GitHub, Microsoft Office, Final Cut Pro, Adobe Premier, WordPress, Tableau.