Si Wu
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EDUCATION

- Boston University, Ph.D. in political science, Boston, MA. Expected May 2025
- Northeastern University, M.A. in journalism, GPA: 3.75, 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
- Languages: English (fluent), Mandarin and Cantonese (native).
- Computing Skills: Python (expert); JavaScript, Machine Learning, HTML, CSS, R, GIS, and LaTeX.
- Software: GitHub, Microsoft Office, Final Cut Pro, Adobe Premier, WordPress, Tableau.

WORK EXPERIENCE

Data Visualization Intern, **Harvard Data Science Review**: Sept. 2019 – Dec. 2019
- Designed and developed data visualization to effectively communicate data science concepts.

Data Science Research Fellow, **MIT/Tufts University**: June 2019 – Aug. 2019
- Researched for the Metric Geometry and Gerrymandering Group, whose mission is to study applications of geometry and computing to U.S. redistricting.
- Coauthored **"Geometry of Graph Partitions via Optimal Transport"**, a paper supervised by Justin Solomon at MIT.
- Compiled interpretable figures with census data and GIS shapefiles by applying math techniques such as Markov Chain Monte Carlo, multi-objective optimization, transport distances and network.
- Developed JavaScript projects for data visualization and outreach.

Data Science Researcher, **Northeastern's School of Journalism**: April 2018 – Present
Sentiment analysis project -
- Results were published on Roll Call – **"Democrats 'went low' on Twitter leading up to 2018".**
- Collected Twitter and Reddit data with Python and R.
- Applied machine learning techniques on tweets from midterm election candidates to predict positive/negative sentiment.

Airplane noise project -
- Researched and collected airplane noise data from various data sources, such as researchers and advocacy groups.
- Explored GIS tools such as Google Maps and laid out shapefiles in Python.

Writer, **Northeastern's School of Journalism:** Aug. 2018 – Present
- Write articles on digital storytelling, including machine learning, data journalism, augmented reality app and podcast.

Faculty Teaching Assistant, **Northeastern University:** Sept. 2018 – Nov. 2018
- Taught classes on topics such as the writing of obituaries, leads and nut graphs in news stories.
- Assigned and graded homework.
- Assisted students in and outside of class on topics such as Associated Press style of writing and grammar.

PAST ACADEMIC EXPERIENCE

Computing projects, **Imperial College London**: Sept. 2013 – June 2016
Python projects:
- Used data from type Ia supernova and statistical methods such as MCMC to estimate cosmological parameter values.
- Analyzed and presented graphs of motion and energies of a satellite travelling around Mars.
- Recorded and analyzed trajectories of rays propagating and refracting at boundaries between different medium.

Assembly project:
- Used assembly language to design a pong game on an oscilloscope.