**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**](https://hdsr.mitpress.mit.edu/): 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](https://mggg.org/), whose mission is to study applications of geometry and computing to U.S. redistricting.
* Coauthored [**“Geometry of Graph Partitions via Optimal Transport”**](https://arxiv.org/abs/1910.09618), a paper supervised by [Justin Solomon](https://people.csail.mit.edu/jsolomon/) 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](https://www.rollcall.com/news/campaigns/lead-midterms-twitter-republicans-went-high-democrats-went-low) – **“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.