

David J. Farnham

Education

- Present **Ph.D.**, *Columbia University*, New York, NY
Earth and Environmental Engineering Department
Adviser Upmanu Lall, Columbia Water Center
Thesis (in progress) *Identifying and modeling spatio-temporal patterns in high dimensional climate and weather datasets with applications to water and energy resource management*
- 2015 **M.S., Earth Resources Engineering**, *Columbia University*, New York, NY
Concentration Water Resources and Climate Risks
Thesis *Predictive Statistical Models Linking Antecedent Meteorological Conditions and Waterway Bacterial Contamination in Urban Waterways*
- 2012 **B.S., Civil Engineering**, *SUNY-Buffalo*, Buffalo, NY
Summa Cum Laude, Honors College member
- 2012 **B.A., Mathematics**, *SUNY-Buffalo*, Buffalo, NY
Summa Cum Laude, Honors College member

Experience

Research

- 2012–Present **Graduate Student Researcher**, *Columbia Water Center & Department of Earth and Environmental Engineering*, Columbia University, New York, NY
- 2012 **Student Researcher**, *Department of Civil and Environmental Engineering*, SUNY-Buffalo, Buffalo, NY
- 2012 **Student Researcher**, *Ecosystem Restoration through Interdisciplinary Exchange*, NSF IGERT REU, SUNY-Buffalo, Buffalo, NY

Teaching

- 2015 **Teaching Assistant/Guest Lecturer: Environmental Data Analysis (Graduate level)**, *Department of Earth and Environmental Engineering*, Columbia University, New York, NY
- 2015 **Teaching Assistant: Better Planet By Design (Undergraduate level)**, *Department of Earth and Environmental Engineering*, Columbia University, New York, NY
- 2014–2016 **Lead Module Developer: HydroViz Web Modules: Teleconnections Module**, www.hydroviz.org

Journal Reviewer

- 2017–Present Geophysical Research Letters, Hydrology and Earth System Sciences, International Journal of Geographical Information Science, Water Research, and Water Resources Research

Student Mentorship/Advisement

- 2017–Present Zeyu Xue and Jianan Cao (master's)
- 2016–2017 Caroline Schwab (high school)

Professional Affiliations

Member, *American Geophysical Union* and *American Meteorological Society*

Publications and Presentations

Select Honors and Awards

- 2015 **National Science Foundation/National Research Foundation of Korea EAPSI Fellowship**, *National Science Foundation*
- 2015 **Graduate Research Fellowship Program Honorable Mention**, *National Science Foundation*
- 2012–Present **Integrated Graduate Education and Research Traineeship**, *National Science Foundation*
- 2012 **Best Poster Presentation**, *22nd Annual Great Lakes Research Consortium*
- 2012 **Garmen Scholarship, Robert P. Apmann Memorial Award, and Undergraduate Research Award**, *SUNY-Buffalo*

Recent Community Involvement

- 2017–Present **Volunteer**, *We Run As One Summer Youth Basketball and cultural exchange*, New York, NY
Event set-up, take-down, and score keeping
- 2014–Present **Volunteer**, *Student Sponsor Partners*, New York, NY
High school student mentor
- 2014, 2016, 2017 **Volunteer**, *International Research Institute for Climate and Society*, New York, NY
Facilitator at Lamont Doherty Earth Observatory open house
- 2013–2014 **Volunteer**, *Citizen's Water Quality Testing Program*, New York, NY
Water quality sampling site coordinator

Select Computer Skills

- Languages Proficient in **R**; Experience with Matlab, Python, C++
- Software Proficient in Markdown, \LaTeX , Microsoft Word/Powerpoint/Excel

Media Appearances

- December 12, 2018 **Work highlighted and quoted in Ines Kagubare's: "Study tracks climate variation's impact on green power"**, E&E News
<https://www.eenews.net/climatewire/2018/12/12/stories/1060109407>
- December 11, 2018 **Work highlighted and quoted in Sarah Fecht's: "How climate impacts solar and wind power supply"**, Phys.org
<https://www.eenews.net/climatewire/2018/12/12/stories/1060109407>
- September 20, 2017 **Quoted in Renee Cho's: "What the U.S. Military is Doing About Climate Change"**, Earth Institute
<https://phys.org/news/2018-12-climate-impacts-solar-power.html>
- April 28, 2016 **Quoted in Mike Hower's: "Sustainable Cities Summit tackles the challenges of urban sustainability"**, Planet Forward
<https://www.planetforward.org/2016/04/28/sustainable-cities-summit-tackles-the-challenges-of-urban-sustainability>
- April 27, 2016 **Quoted in Mike Hower's: "The 5 toughest challenges tomorrow's cities face"**, GreenBiz
<https://www.greenbiz.com/article/5-toughest-challenges-tomorrows-cities-face>