
Education

Present **Ph.D.**, *Columbia University*, New York, NY.
Earth and Environmental Engineering Department

Adviser Upmanu Lall, Columbia Water Center

2015 **M.S., Earth Resources Engineering**, *Columbia University*, New York, NY.

Concentration Water Resources and Climate Risks

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 Experience

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 Experience

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–Present **Lead Module Developer: HydroViz Web Modules: Teleconnections Module**, www.hydroviz.org.

Publications and Presentations

Journal Articles

- [1] David J Farnham, Rebecca A Gibson, Diana Y Hsueh, Wade R McGillis, Patricia J Culligan, Nina Zain, and Rob Buchanan. “Citizen science-based water quality monitoring: Constructing a large database to characterize the impacts of combined sewer overflow in New York City”. In: *Science of The Total Environment* (Dec. 2016). doi: 10.1016/j.scitotenv.2016.11.116.
- [5] David J. Farnham and Upmanu Lall. “Predictive statistical models linking antecedent meteorological conditions and waterway bacterial contamination in urban waterways”. In: *Water Research* 76 (June 2015), pp. 143–159. doi: 10.1016/j.watres.2015.02.040.

Conference Presentations and Papers

- [2] E. Habib, D. Tarboton, M. Deshotel, and D. J. Farnham. "Development of Student-centered Modules to Support Active Learning in Hydrology". In: *ASEE Annual Conference & Exposition*. New Orleans, LA, 2016.
- [3] Lincoln R. Larson, Caren B. Cooper, Katie Krafte, Rebecca Gibson, David Farnham, Diana Hsueh, Patricia Culligan, and Wade McGillis. "Characterizing citizen scientists based on project engagement: Data generators, data users, and "onlooker effects."" In: *Southeastern Recreation Research Conference*. Asheville, NC, 2016.
- [4] David J. Farnham, Emad. Habib, and Upmanu Lall. "HydroViz: A Web-based Climate Teleconnection Module for Undergraduate and Graduate Water Engineering Students". In: *AGU Fall Meeting*. San Francisco, CA, 2015.
- [6] David J Farnham, Upmanu Lall, Hyun-Han Kwon, and James Doss-Gollin. "Moisture Transport and Extreme Precipitation in Mid-latitudes". In: *AGU Fall Meeting*. San Francisco, CA, 2015.
- [7] Emad. Habib, Madeleine Bodin, David Taboton, Madeline Merck, and David J. Farnham. "Stimulating Active Learning in Hydrology Using Research-Driven, Web-based Learning Modules". In: *ASEE Annual Conference & Exposition*. Seattle, WA, 2015.
- [8] Diana Hsueh, David J Farnham, Rebecca Gibson, Wade Randall McGillis, Patricia Jane Culligan, Caren Cooper, Lincoln Larson, Brian Justin Mailloux, Robert Buchanan, Nancy Borus, Nina Zain, Diana Eddowes, Lizzette Butkiewicz, and Steven A. Loiselle¹². "Advancing the Potential of Citizen Science for Urban Water Quality Monitoring: Exploring Research Design and Methodology in New York City". In: *AGU Fall Meeting*. San Francisco, CA, 2015.
- [9] D. Y. Hsueh, D. J. Farnham, R. A. Gibson, W. R. McGillis, Y. Zheng, R. Buchanan, D. Eddowes, N. Zain, S. Loiselle, and L. Butkiewicz. "NYC URBAN WATER QUALITY: MONITORING THE FLOW OF CSOS WITH CITIZEN SCIENTISTS". In: *Aquatic Sciences Meeting*. Granada, Spain, 2015.
- [10] David J. Farnham and Joseph F. Atkinson. "Flow visualization study: Understanding water circulation in Lake Ontario through physical modeling". In: *The 22nd Annual Great Lakes Research Consortium Student-Faculty Conference*. Oswego, NY, 2012.

Invited Presentations and Panel Participation

Invited Presentations

- November 6, 2015 **Bronx Sewershed Water Quality and Citizen Science, with W. McGillis and D. Hsueh**, *Interdisciplinary Workshop on Urban Green Infrastructure: Reports on Monitoring, Modeling, Performance & Design Work*, Columbia University, New York, NY.
- August 7, 2015 **Extreme Rainfall Mechanisms, Prediction, and Simulation at Chonbuk National University in Summer 2015**, *NSF EAPSI closing ceremony presentation series*, National Research Foundation of Korea, Seoul, South Korea.
- April 15, 2015 **NYC Urban Water Quality: Monitoring the Flow of CSOs with Citizen Scientists, with R. Gibson and D. Hsueh**, *Citizens Advisory Committee, New York-New Jersey Harbor & Estuary Program meeting*, Hudson River Foundation, New York, NY.
- October 10, 2013 **Urban Water Cycle Responses to Climate**, *Brown Bag seminar series*, Columbia University, New York, NY.
- July 11, 2013 **Understanding Climate Risks in an Urban Environment, with M. Haraguchi**, *NSF IGERT, Solving Urbanization Challenges by Design summer workshop series*, Columbia University, New York, NY.

Panel participation

- May 13, 2016 **The Monster El Niño Of 2015-16: What Was Expected? And, What Was Done?**, *Earth Institute Sustainable Development Seminar Series*, Columbia University, New York, NY.
- April 21, 2016 **Rethinking Water: Solutions for a 21st Century Infrastructure**, *2016 Planet Forward Sustainable Cities Summit*, George Washington University, Washington, DC.

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**, *SUNY-Buffalo*.
- 2012 **Robert P. Apmann Memorial Award**, *SUNY-Buffalo*.
- 2012 **Undergraduate Research Award**, *SUNY-Buffalo*.
- 2008–2012 **Provost Scholar Award**, *SUNY-Buffalo*.