David J. Farnham

Education

- Present **Ph.D. Student**, *Columbia University*, New York, NY. Earth and Environmental Engineering Department
 - 2015 **M.S.**, *Columbia University*, New York, NY. Earth and Environmental Engineering Department
 - 2012 **B.S., Civil Engineering**, *SUNY-Buffalo*, Buffalo, NY. Summa Cum Laude, Honors College membe
 - 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, New York.
 - 2012 **Student Researcher**, Department of Civil and Environmental Engineering, SUNY-Buffalo, Buffalo, New York.
 - 2012 **Student Researcher**, Ecosystem Restoration through Interdisciplinary Exchange, NSF IGERT REU, Buffalo, New York.

Teaching Experience

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

Publications and Presentations

Journal Articles

[1] David J. Farnham and Upmanu Lall. "Predictive statistical models linking antecedent meteorological conditions and waterway bacterial contamination in urban waterways". In: *Water Research* 76 (2015), pp. 143–159. DOI: 10.1016/j.watres.2015.02.040.

Conference Papers

- [1] 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.
- [2] 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.

- [3] 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.
- [4] 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.
- [5] 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.
- [6] 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.
- [7] 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.
- [8] 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, New York, New York.
 - August 7, 2015 Extreme Rainfall Mechanisms, Prediction, and Simulation at Chonbuk National University in summer 2015, EAPSI closing ceremony presentation series, National Research Foundation of 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.
 - October 10, 2013 **Urban Water Cycle Responses to Climate**, *Brown Bag seminar series*, Columbia University.
 - 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.

Panel participation

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

Honors and Awards

2015 National Science Foundation/National Research Foundation of Korea EAPSI Fellowship, National Science Foundation.

- 2015 Graduate Research Fellowship Program, 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.