ABIGAIL L. SMITH

ADDRESS: Department of Statistics

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EDUCATION

EXPECTED 2022 Ph.D. Candidate in Statistics, Northwestern University, Evanston, IL

Incorporating Record Linkage Error in Network Inferences

Advisor: Dr. Bruce Spencer

MAY 2017 Masters of Statistical Practice, Carnegie Mellon University, Pittsburgh

MAY 2016 Bachelor of Science in MATHEMATICS (STATISTICS), Carnegie Mellon University, Pittsburgh

College Honors | Minors: Machine Learning, Biomedical Engineering

RESEARCH AND WORK EXPERIENCE

SEPTEMBER 2018- | Assistant Chair at Northwestern Residential Academic Initiatives

International Studies Residential College

Facilitate academic programming and faculty engagement with undergraduate residents.

JANUARY 2018- Consultant for Young Research Group

JUNE 2019 | Longitudinal Design and Analysis for Child and Maternal Health

MARCH 2015- Researcher at CARNEGIE MELLON DEPARTMENT OF STATISTICS

AUGUST 2017 | Synthetic Ecosystems for Agent-Based Models

Worked with Dr. Bill Eddy and the MIDAS team on spew package for synthetic populations

August 2013- | Andrew Ambassador at Carnegie Mellon Office of Admission

MAY 2016 | Tour Guide and Admissions Representative

Led campus tours, conducted student interviews and information sessions

MAY 2014- | Summer Undergraduate Researcher at THE UNIVERSITY OF GEORGIA

AUGUST 2014 | Population Biology of Infectious Diseases (REU)

Developed deterministic and stochastic models for a phage-host system in the Drake Lab

during this NSF-sponsored research opportunity.

May 2014 | Summer Intern at Johns Hopkins Applied Physics Laboratory

AUGUST 2014 | Electronic Warfare Group

TEACHING EXPERIENCE

SEPTEMBER 2018- | Teaching Assistant at Northwestern Department of Statistics

STAT 301 Data Science, STAT 202 Introduction to Statistics, STAT 232 Applied

Statistics

Designed curriculum for STAT 301- Data Science, guest lectured STAT 202, and edited labs

in R.

July 2019- Instructor at Northwestern Prison Education Program

AUGUST 2019 | Intro to Social Statistics and Data Literacy

Designed and taught the course with two colleagues from NU Department of Statistics

AUGUST 2016- Teaching Assistant at CARNEGIE MELLON DEPARTMENT OF STATISTICS

MAY 2017 36-309 Experimental Design, 36-303 Sampling, Survey, and Society

Led labs, met biweekly with groups for semester-long survey design projects

PUBLICATIONS

Miller, J., Fitzgerald, K., Smith, A. "Geophagy among a Cohort of Kenyan Women with Mixed HIV Status: A Longitudinal Analysis". The American Journal of Tropical Medicine and Hygiene, 22 July 2019.

Smith, A., Tolbert, H. "An Analysis of Existing Record Linkage Software for the Syrian Conflict". Human Rights Data Analysis Group. May 2017.

Smith, A. "Zika is Coming; and We Need Statistics". CHANCE MAGAZINE (AMERICAN STATISTICAL ASSOCIATION), Vol 29.3, September 2016, p. 17-26.

PRESENTATIONS AND PROJECTS

Dunford, E., Hagar, N., Smith, A., Abbot, R. "qualify: A R Package for Transparent Data Generation". Summer Institute for Computational Social Science: Chicago (2019).

Smith, **A.** "Incorporating Record Linkage Error in Network Inferences". *Women in Statistics and Data Science* Seattle, WA. Oct 2019.

Ventura, S. **Smith**, **A.**, Gallagher, S., Richardson, L., Chang, A. "Zika is Coming; and We Need Statistics". *Joint Statistical Meetings*. Baltimore, MD. July 2017.

Smith, A.. "Modeling Cross-Border Ebola Transmissions; Agent-Based Models for Infectious Diseases". *Meeting of the Minds Research Symposium*. Pittsburgh, PA. May 2015, 2016.

Smith, A., Drake, J., Kaul, R. Mathematical Models for a T7 Phage-*E.coli* System with Vaccination Strategy Implementation". *Emerging Researchers National Conference*. Washington, D.C. February 2015.

LEADERSHIP AND SERVICE EXPERIENCE

Women in Statistics Group: External Events Coordinator

Primary conference organizer and ambassador for Women in Data Science (WiDS): Chicago

R-Ladies Chicago and Chicago R Unconference

Hosted several events to connect the R user community, contributed to open-source packages

Graduate Women Across Northwestern (GWAN): Service Chair

Planned service opportunities for graduate women at Northwestern

Girls on the Run: Chicago

Coached/mentored girls ages 9-13 in an after-school 5k training program; coordinated race days

Carnegie Mellon Project Rwanda

President of initiative to bridge the gap between the CMU-Pittsburgh and CMU-Africa campuses; organized student-led trip to Kigali

ASSOCIATIONS

Institute for Policy Research Graduate Affiliate, Northwestern American Statistical Association Member

SKILLS AND COURSES

Software: Advanced : R, Python

Proficient: SAS, SPSS, SQL

Beginner: C

Relevant Courses: Statistical Methods for Epidemiology, Applied Linear Models, Time Series,

Multilevel/Hierarchical Models, Principles of Computer Science, Data Mining, Innovating for Underserved Communities, Experimental Design, Machine Learning,

Probability Theory, Advanced Survey/Sampling, Social Network Analysis