HANNAH DIRECTOR

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⌨ hdirector 📖 Publications

Collaborative data scientist with expertise in space and space-time data, statistical methods, and climate science

EXPERIENCE

NSF Mathematical Sciences Postdoctoral Fellow
Colorado School of Mines

📅 Aug. 2020 – Present   📍 Golden, CO

- Developing algorithms to identify and model features of sea ice that are below the spatial scale of low-resolution Earth system models
- Presenting research at scientific and statistical meetings

Graduate Research Fellow, Teaching Assistant
University of Washington

📅 Sep. 2015 – Jun. 2020   📍 Seattle, WA

- Improved bias correction and probabilistic forecasting of Arctic sea ice on seasonal and sub-seasonal time scales via developing statistical contour models
- Taught introductory machine learning
- Presented at 10+ scientific conferences and seminars
- Provided statistical expertise to research on cloud brightening and cochlear implants
- Mentored undergraduate researcher

Graduate Research Assistant
Los Alamos National Laboratory

📅 Jan. 2015 – Aug. 2015   📍 Los Alamos, NM

- Contributed to the development of a sampling method to enable Bayesian analysis on a type of constrained data
- Wrote and published an open-source software package implementing this sampler

National Security Intern
Pacific Northwest National Laboratory

📅 May 2014 – Aug. 2014   📍 Richland, WA

- Tested and wrote tutorials for software that enabled exploratory data analysis of data too large for local memory

Student Researcher
Harvard University

📅 Oct. 2013 – Dec. 2015   📍 Cambridge, MA

- Led research highlighting biases introduced when naively comparing point-level and gridded climate data

Risk Analysis Intern
The Boeing Company

📅 Jun. 2012 – Aug. 2012   📍 Renton, WA

- Designed a tool for estimating expected environment, health and safety risk of different manufacturing sites

EDUCATION

PhD, Statistics
University of Washington (UW)

📅 2020

AM, Statistics
Harvard University

📅 2015

BS, Mathematics & Statistics
University of Washington (UW)
Cum Laude

📅 2013

SKILLS

Proficiency: R (Package development, Rcpp, Rmpi), UNIX, High-performance computing, LaTex

Experience: Python, MATLAB, git

AWARDS AND GRANTS

- NSF Mathematical Science Postdoctoral Fellowship, ($150,000)
- NSF Graduate Research Fellowship ($138,000)
- UW Statistics Department Z.W. Birnbaum Award for Outstanding Ph.D. Candidacy Exam
- Honorable Mention, Student Oral Presentation Awards, International Glaciology Society Sea Ice Symposium
- UW Graduate School Top Scholar Entrance Award ($5000)

LEADERSHIP

Student Steering Committee Member
UW Program on Climate Change

📅 Sep. 2018 - Jun. 2020

Leadership Team
UW Women in Biostatistics and Statistics

📅 Sep. 2018 - Jun. 2020

Student Committee Member
American Meteorological Society Committee on Probability and Statistics

📅 Jan. 2017 - Jan. 2019