

Hannah C. Gunderman, PhD

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Summary of Expertise

Accomplished social science researcher and data analyst with 10 years of extensive recognition in academic, R&D, research library, and governmental environments. Utilizing a background in social studies, diversity studies, and international education to conduct data-driven research on humanitarian crises across the world with a concentration on climate change and population stability. Educator with empathic and compassionate communication skills across diverse populations with familiarity instructing both physical and social sciences. Comfortable communicating data patterns and research findings across a variety of scientific and general audiences. While a social scientist specializing in cultural studies, also proficient in rigorous qualitative and quantitative research techniques. Student outreach advocate with several active mentorships of University of Tennessee students.

Work Experience

Postdoctoral Research Associate II - 2018 to Present

Center for Information & Communication Studies and School of Information Sciences, University of Tennessee (Knoxville, TN)

- Facilitating a new laboratory space in the Department of Geography with a research team of 6 social scientists for social media data mining of National Parks content
- Collaborating with a team of environmental and social scientists on the DataONE project, an initiative for supporting enhanced search and discovery of Earth and environmental data
- Co-developing an interactive information retrieval experimental study testing cognitive user experience in the campus UX laboratory
- Designing a GitHub-hosted website which provides 100+ resources for science data management training and data best practices for Belmont Forum researchers across the world
- Enlisting Python to automate information retrieval tasks among several research groups across CICS and SIS
- Established the SIS Programming Research Group, an initiative for helping SIS graduate students develop strong programming techniques and comfortability with a wide variety of IDEs, packages, and programmatic theory

Population Research Associate in Geographic Information Science - 2015 to 2018

Oak Ridge Associated Universities at Oak Ridge National Laboratory (Oak Ridge, TN)

- Collaborated as a member of a 15 scientist team in Population Distribution and Dynamics on humanitarian research
- Analyzed qualitative and quantitative data (100,000+ data points) using ArcGIS, Python, R, SPSS, and SQL which provides advanced granularity within results creating enhanced accuracy for policymakers
- Strategized with team of 3 in preparing monthly status reports and data dissemination to governmental sponsors
- Extensive use of LaTeX and Microsoft Office Suite for preparing written summaries and organizing metadata
- Conducted a project on predicting population fluctuations in Africa using Python and predictive algorithms
- Engaged with high-volume data (1 million+ records) through relational databases

Director of Community Outreach and Finance - 2015 to Present

Kickstand Community Bike Shop (Knoxville, TN)

- Manages an annual budget of approximately \$30k and completes yearly tax-exemption paperwork for TN authorities
- Writes and oversees grants from statewide cycling foundations, such as the Jeff Roth Cycling Foundation
- Directs outreach and collaboration efforts with 30+ community organizations for annual events such as Open Streets
- Works within a negligible budget to find unique and innovative ways to engage the community; built an organic Instagram presence with over 600 followers in under one month
- Redeveloped the official Kickstand website in 2018, migrating to more user-friendly and informative format
- Resolves disputes among board members and volunteers; tasked with drafting official conduct policies

Graduate Teaching Assistant/Associate - 2015 to 2018

Department of Geography, University of Tennessee (Knoxville, TN)

- Directly supervised 2 teaching assistants while teaching courses in human geography
- Assisted with human, physical, and environmental courses teaching class sizes ranging from 20-100 students; aiding instructor efforts to reorient student projects and engagement toward experiential learning
- Provided students with targeted assignments, in-class support, mentorship, and development opportunities
- Coordinated networking events including symposium speakers, targeting an audience of 20-30 attendees
- Conducted research using qualitative software MaxQDA and NVivo and data visualization software Tableau

Adjunct Professor of Geography - January 2017 to May 2017

Department of Behavioral and Social Sciences, Walters State Community College (Sevierville, TN)

- Developed and delivered the course GEOG 1020: Introduction to Cultural Geography
- Taught 10 in-class students and 15 distance campus students simultaneously utilizing classroom technology
- Provided conflict management and crisis intervention for students who experienced difficulty in the course
- Earned positive student evaluations in the top 5% of all evaluated metrics

Graduate Teaching Assistant - 2012 to 2014

Department of Geography, University of Wyoming (Laramie, WY)

- Facilitated course design and implementation for human, physical, and world regional geography courses.
- Conducted original research on media communications using ArcGIS, ethnographic interviews, and data mining
- Held leadership positions in multiple committees and organizations, including the Geography Club
- Taught an introductory physical geography laboratory course in the summer of 2014 to 30 students

Digital Programs and Archives Aide; Rare Books Library Assistant - 2011 to 2014

University of Wyoming, American Heritage Center (Laramie, WY)

- Processed collection materials making them available to the public online; organized newly donated archival materials
- Performed weekly exhibit maintenance; matted and framed artwork for special events and gifts
- Developed educational exhibits in the Toppan Library using rare books and gave daily tours of exhibitions to visitors
- Gained on-the-job experience in best practices for library, museum, and archive procedures and policies

Lobster Sea Sampler (Summer Internship) - 2011 to 2011

State of Maine Department of Marine Resources (West Boothbay Harbor, ME)

- Coordinated logistics for 2-3 trips per week with lobster fishers across Maine's seven fishing zones
- Collected biological data of lobster catch (500-1,000 per day) including sex, carapace length, and presence/absence of eggs to analyze the health of the state's lobster population, and prepared weekly reports summarizing the data
- Transcribed biological data into a database environment and prepared data for further spatial and statistical analysis
- Initiated a temporal analysis of Maine's lobstering policies from the past decade in support of developing further policy-driven regulations by DMR

Fisheries Technician (Summer Internships) - 2009 to 2010

National Park Service (Yellowstone National Park, WY)

- Assisted in the daily operation of the Lake Trout Removal Project, which has a budget of \$2 million per year
- Performed equipment and boat maintenance on a daily basis; maintained proper safety protocol during operation
- Gained knowledge of invasive species management and environmental impacts of invasive-native species interactions

Education

Ph.D., Geography - 2014 to 2018; *University of Tennessee-Knoxville*

M.S., Information Sciences (ALA-Accredited) - Beginning Spring 2019; *University of Tennessee-Knoxville*

M.A., Geography/Environment and Natural Resources, Statistics Minor - 2011 to 2014; *University of Wyoming (Laramie)*

B.S., Geography/Natural Resource Management and Recreation - 2008 to 2011; *University of Wyoming (Laramie)*