Jacob Gifford

Address

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Education

· **Ph.D., Economics**   **Expected 2027**
  Washington State University, WA
  Primary Advisor: Jonathan Yoder (Director of Washington Water Resource Center)

· **B.S., Economics**   **2023**
  Minors in Mathematics and GIS
  Brigham Young University - Idaho, Rexburg, ID
  Cum Laude

Refereed Publications

· Gifford, J., & Oliver, J. (2021). Black Lives Matter and Granger Causal Testing: A Signal of Economic Deprivation. Modern Economy, 12(11), 1666-1685 https://doi.org/10.4236/me.2021.1211084

Organizational Publications

· Gifford, J. (2023) A Probabilistic Peak Flood Risk Model of the Henrys Fork in Fremont County. Fremont County GIS Office.

· Gifford, J. Martin, M. (2022) College of Business and Communication Diversity and Inclusion Report. Brigham Young University - Idaho (please request access).

· Sarpong D., Osei-Asare Y., Gray B., Tsekpo E. (2022) FarmGrow: Farm Development Plans for Smallholder Cocoa Farmers in Ghana Endline Report. Grameen Foundation (Contributions).

Research in Progress

· Working under the "Technology for Trade grant" to model water markets under institutional and environmental constraints, to improve use efficiency and improve our understanding of the mechanisms for optimal resource allocation between human and environmental systems.

Fellowships, Grants, Honors, & Awards

- Ezra Taft Benson Award for Excellence in Economics, BYU-I
- Thomas E. Ricks Academic Grant, Brigham Young University - Idaho
- Eagle Scout Award Recipient

Research Interests

- Computational socio-hydrologic (agent-based) modeling, remote sensing, spatial statistics, market/mechanism design, algorithmic game theory, and geographic information science

Professional Experience

- Research Assistant, Jonothan Yoder, School of Economic Sciences, WSU;   2024
  Technology for Trade Project
- Teaching Assistant, Joe Cook, School of Economic Sciences, WSU   2023
- GIS Analyst Intern, Fremont County Idaho GIS Office   2023
- GIS Consultant, Better in our Backyard   2023
- Research Lead, College of Business and Communication, Brigham Young University - Idaho   2022
- Research Assistant, Jeffrey Oliver, Department of Sociology, Brigham Young University - Idaho   2021
- Research Analyst, Grameen Foundation   2021-2022

Teaching

- SOC 295-R Games in Economic Sociology,   2021-2022
  Department of Sociology, Brigham Young University-Idaho

Service

- Economics Society President, BYU-Idaho   2021
- Community Service Volunteer in Melbourne Australia, LDS Church   2017-2019

Computer Programming and Software

- Proficient in Python and R for various applications including algorithm development and testing, Geographic Information Systems, statistical analysis, and machine learning.
- Experienced with Esri suite, QGIS, Pix4D, and GeoDa for tasks such as remote sensing and socio-spatial analysis.
- Skilled in hydrologic modeling using HEC-RAS and EPA SWMM.
- Knowledgeable in JavaScript, HTML, and SQL for website design and database management.

Foreign Language

- Portuguese

Last Update: 28 January 2022