ERICH SEAMON

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EDUCATION

Degree: B.A., Geosciences. *June 1991*
University: Wittenberg University, Springfield, OH
Description: Focus on geospatial methods

Degree: M.S., Geosciences. *December 1994*
University: Bowling Green State University, Bowling Green, OH
Description: Focus on GIS and surficial processes. Thesis: A GIS Model to Calculate Sediment Yields from a Small Rural Watershed, Old Woman Creek, Erie and Huron Counties, Ohio." Ohio Journal of Science vol. 97 (3): 44-52.

Degree: Ph.D., Natural Resources. *December 2019*
University: University of Idaho, Moscow, ID
Description: Research emphasis examined the use of climatic relationships to examine agricultural insurance loss, using machine learning and data science techniques. http://github.com/erichseamon for repositories, and https://haclab.uidaho.edu for more specific details on research.

Postdoctoral Training: Postdoctoral Fellowship. *October 2019 – May 2022*
University: University of Idaho, Institute for Modeling, Collaboration, and Innovation (http://imci.uidaho.edu)
Description: Research focus on spatiotemporal modeling and applications to health

CERTIFICATIONS AND AWARDS

- Xi Sigma Xi Natural Resource Honor Society
- Phi Kappa Phi Honor Society

PUBLICATIONS UNDER REVIEW

1. **Seamon, E**., Miller, C.R., Johnson-Leung, J., Ridenhour, B.J. (2024) "Predictive Spatial Modeling of Sociodemographic Risk for COVID-19 Mortality" BMC Public Health. *Under review.* https://doi.org/10.1101/2023.07.21.23292785
2. Williams, P. Jones-Crank, J.L., Daher, B., Thomas, A., Cortus, **E. Seamon**, E., Kliskey, A. "Meta-Synthesis and R Analysis of Stakeholder Engagement in Food, Energy and Water Literature" (2025). Nature Sustainability. *Under Review*

PUBLICATIONS

1. **Seamon E**., Mattera, J., Keim, S.A., Leerkes, E.M., Rennels, J.L., Kayl, A.J., Kulhanek, K.M., Narvaez, D., Sanborn, S.M., Grandits J.B., Schetter, C.D., Coussons-Read, M., Tarullo, A.R., Schoppe-Sullivan, S.J., Thomason, M.E., Braungart-Rieker, J.M., Lumeng, J.C., Lenze, S.N., Christian, L.M., Saxbe, D.E., Stroud, L.R., Rodriguez, C.M., Anzman-Frasca, S., Gartstein. (2024). Leveraging Machine Learning to Study How Temperament Scores Predict Pre-Term Birth Status. (2024) Global Pediatrics, volume 9, https://doi.org/10.1016/j.gpeds.2024.100220.

2. Moxley, T., Johnson-Leung, J., **Seamon, E.,** Williams, C., Ridenhour, B. "Application of Elastic Net Regression for Modeling COVID-19 Sociodemographic Risk Factors". (2023). Ethnicity and Health. https://doi.org/10.1101/2023.01.19.23284288
3. **Seamon E**, Gessler PE, Abatzoglou JT, Mote PW, Lee SS. Climatic Damage Cause Variations of Agricultural Insurance Loss for the Pacific Northwest Region of the United States. Agriculture. (2023). 13(12):2214. https://doi.org/10.3390/agriculture13122214
4. **Seamon, E**., Megheib, M., Williams, C. J., Murphy, C. F., & Brown, H. F. (2023). Estimating county level health indicators using spatial microsimulation. Population, Space and Place, e2647. https://doi.org/10.1002/psp.2647
5. **Seamon, E**., Gessler, P., Abatzoglou, J., Mote, P., & Lee, S. (2022). A climatic random forest model of agricultural insurance loss for the Northwest United States. Environmental Data Science, 1, E29. https://doi.org/10.1017/eds.2022.27
6. Adhikari, S., **Seamon, E**., Wu, Y., Sadeghi, S.E., Eigenbrode, S.D. (2022). "Do Invasive and Naturalized Aphid Pest Populations Respond Differently to Climatic and Landscape Factors?" Journal of Economic Entomology. https://doi.org/10.1093/jee/toac044
4. Ridenhour, B., Sarathchandra, D., **Seamon, E**., Brown, H., Leung, F.Y., Johnson-Leon, M., Megheib, M., Miller, C., Johnson-Leung, J. 2022 "Effects of trust, risk perception, and health behavior on COVID-19 disease burden: Evidence from a multi-state US survey" PLoS One. https://doi.org/10.1101/2021.11.17.21266481
5. Gartstein, M.A., **Seamon, E**., Mattera, J., Bosquet-Enlow, M., Rosalind J. Wright, Perez-Edgar, K., Buss, K., LoBue, V., Bell, M.A., Calkins, S.D., Goodman S.H., Spieker, S., Bridgett, D.J., Salisbury A.L., Mliner S.B., Gunnar, M.R., Muzik, M., Stifter, C.A., Planalp, E.M., Mehr, S.A., Spelke, E.S., Lukowski, A.F., Groh, A.M., Lickenbrock, D.M., Santelli, R., Du Rocher Schudlich, T., Anzman-Frasca S., Thrasher, C., Diaz, A., Dayton C., Moding, K.J., Jordan, E.M. 2021 "Using Machine Learning to Understand Age and Gender Differences in Infant Temperament". 2022. PLOS One https://doi.org/10.1371/journal.pone.0266026
6. Gartstein, M.A., **Seamon, E**., Thompson, S.F., Lengua, L., 2018. "Community Crime Exposure and Risk for Obesity: Examining Child Hypothalamic–Pituitary–Adrenal (HPA)-Axis Response as a Moderator" Journal of Pediatric Psychology. https://doi.org/10.1093/jpepsy/jsx116
7. Gartstein, M.A., **Seamon, E**., Thompson, S.F., Lengua L. 2018. "Parenting matters: Moderation of biological and community risk for obesity" Journal of Applied Developmental Psychology. https://doi.org/10.1016/j.appdev.2018.01.004
8. **Seamon, E**, Roesch-McNally, G., McNamee, L., Roth, I., Wulfhorst, J., Eigenbrode, S., & Laursen, D., 2017. "Producer Perceptions on Climate Change and Agriculture: A Statistical Atlas". University of Idaho Agricultural Economics Extension Series 17-01. Funded through award #2011-68002-30191 from USDA-NIFA.
9. Gartstein, M.A., Prokasky, A., Bell, M.A., Calkins, S., Bridgett, D.J., Braungart-Rieker, J., Leerkes, E., Cheatham, C., Eiden, R.D., Mize, K.D., Jones, N., Mireault, G., & **Seamon, E**. (2017). Latent Profile and Cluster Analysis of infant temperament: Comparisons across person-centered approaches. Developmental Psychology, 53, 1811-1825 https://doi.org/10.1037/dev0000382
10. Gartstein, M.A., **Seamon, E.**, Dishion, T.J., 2013. "Geospatial Ecology of Adolescent Problem Behavior: Contributions of Community Factors and Parental Monitoring" Journal of Community Psychology. https://doi.org/10.1002/jcop.21610
11. Evans, J.E., **Seamon, E**. 1997. "A GIS Model to Calculate Sediment Yields from a Small Rural Watershed, Old Woman Creek, Erie and Huron Counties, Ohio" Ohio Journal of Science vol. 97 (3): 44-52, 1997.

PRESENTATIONS AND POSTERS

1. Seamon, E., Brown, H., Murphy, C, William, C. "Spatial Microsimulation of COVID-19 Health Parameters for the State of Idaho". Keynote presentation, CDC BRFSS Annual Meeting, Atlanta , GA 2023.
2. Seamon, E., Brown, H. 2022. "Estimating Idaho county level health indicators using small area estimation and micro simulation". Presented to the Idaho Health Equity Task Force, January 2023.
3. Seamon, E., Gessler, P.E., Abatzoglou, J.T., Mote, P.E., Lee, S. "Random Forest Climatic Modeling of Agricultural Insurance Loss Across the Inland Pacific Northwest Region of the United States." Poster Presentation, International Conference on Climate Informatics, Asheville, NC. 2022
4. Seamon, E., Megheib, M., Brown, H., Williams, C. "Estimating Idaho county level health indicators using small area estimation and micro simulation". Presented the Idaho Department of Health and Welfare, September 2021.

5. Seamon, E. “Exploring agricultural insurance loss due to drought across the inland Pacific Northwest: spatiotemporal relationships to climate”. Presentation to the National Integrated Drought Information System (NIDIS), Pacific Northwest Drought Early Warning System. December 2019
6. Seamon, E., Gessler, P.E., Abatzoglou, J.A., Mote, P. 2018. “Decision Tree Modeling of Agricultural Insurance Loss: Relationships to Climate for the Palouse Region of the Pacific Northwest” Pacific Northwest Climate Conference, Boise, ID
7. Seamon, E., Gessler, P.E., Eigenbrode, S., Nelson, R., Stockle, C. 2015. “REACCHPNA and data management” USDA Data Harmonization Workshop, Washington DC
8. Seamon, E., Gessler, P.E., Flathers, E., Sheneman, L. 2015. “Climatic Data Analysis and Data Management: Regional Approaches to Climate Change for Pacific Northwest Agriculture” University of Idaho GIS Day, Presentation, Idaho Commons
9. Flathers, E., Gessler, P.E., Seamon, E., 2015. “Implementation of an OASIS Repository using Free, Open Source Software” AGU Fall Meeting, San Francisco, CA
10. Seamon, E., Gessler, P.E., Flathers, E., 2015. “Development of an Interactive Crop Growth Web Service Architecture to Review and Forecast Agricultural Sustainability” AGU Fall Meeting, San Francisco, CA
11. Seamon, E., Gessler, P.E., Flathers, E., Sheneman, L. 2015. “Data Management and Integration for Transdisciplinary Research: REACCHPNA” Arid Cereals International Conference, Minneapolis, MN. Poster
12. Seamon, E., Gessler, P.E., Flathers, E., Walden, V.P. 2014. “Development of an interactive crop growth web service architecture to review and forecast agricultural sustainability” Poster presentation, American Geophysical Union Fall Meeting.
13. Seamon, E., Gessler, P.E., Fricke, S. 2014. “Using geospatial information for agricultural climate change analysis” Presentation at the 2014 ESRI Users Conference, San Diego, CA.
14. Flathers, E., Gessler, P.E., Seamon, E., 2014. “Service-Based Extensions to an OASIS Archive for Science Data Management” AGU Fall Meeting
15. Seamon, E., Gessler, P.E., Flathers, E., Sheneman, L., 2013. “Climatic Data Integration and Analysis - Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA)” NIFA Climate Science Project Director’s Meeting, Gainesville, FLA
16. Seamon, E., Gessler, P.E., Flathers, E., Sheneman, L., 2013. “Climatic Data Integration and Analysis - Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA)” Presentation at the American Geophysical Union Fall Meeting
17. Seamon, E., Gessler, P.E., Flathers, E., Sheneman, L., Goldberg, G. 2013. “Climatic Data Integration and Analysis - Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA)” Presentation at Pacific Northwest Climate Science Conference, Portland, OR
18. Seamon, Gessler, P.E., 2012. “Data Management and REACCH: Strategies and Implementation. University of Idaho” Poster - Annual REACCH CAP Conference.
19. Gartstein, M.A., Dishion, T.J., Seamon, E., 2008. “Explaining Neighborhood Correlates of Adolescent Conduct Problems: the Geospatial Perspective.” Presentation at the Annual Convention of the Society for Prevention Research, San Francisco, CA
20. Seamon, E., 2006. “Understanding Adolescent Behavior with GIS – a case study: Portland, Oregon” ESRI Users Conference, San Diego Convention Center, San Diego, CA
21. Seamon, E., Gartstein, M.A., Dishon, T. 2006. “Explaining neighborhood correlates of adolescent conduct problems in the Portland, Oregon metropolitan area: the geo-spatial perspective” Santa Fe, NM
22. Seamon, E., 2005. “Security, Privacy and GIS: Changing Perspectives in a Changing World.” ESRI Users Conference. San Diego Convention Center, San Diego, CA
23. Seamon, E., 2005. “Implementing Enterprise GIS in San Francisco” American Planning Association National Conference, March 21-25, San Francisco, CA.
24. Seamon E., 2005. “Managing geographic information nationally: strategies for GIS governance” California GIS Conference, Bakersfield, CA
25. Seamon, E., 2005. “SF Enterprise GIS: interactions and uses of geospatial databases” Northern California URISA presentation, Sacramento, CA
26. Seamon, E., 2004. “Building a Successful Enterprise GIS in San Francisco, CA” ESRI Users’ Conference, San Diego, CA
27. Seamon, E., 2004. “Fighting Crime in the 21st Century: Developing CrimeMAPS, SF’s first dynamic crime analysis system” National Institute of Justice (NIJ) Seventh Annual Crime Mapping Conference, Boston, MA

FUNDED GRANTS

- **2024-2025**, Lead-*PI* – National Institutes for Health Centers for Biomedical Research Excellence (COBRE) Supplemental, funded from the National Institutes for Nursing Research (NINR). "Spatiotemporal modeling techniques to explore maternal and infant health in Idaho" NIH award # P20GM104420 ($200,000).

- **2023-2027**, *Co-PI* - National Science Foundation, EPSCOR RII Track-2 – NSF award # 2316126 ($6,000,000). "Where We Live (WWL): Local and Place Based Adaptation to Climate Change and Critical Resources in Underserved Rural Communities."

- **2023-2027**, *Senior Personnel* - National Science Foundation EPSCOR RII Track-1 – NSF award # 2242769 ($20,000,000). "Idaho Community-engaged Resilience for Energy-Water Systems (I-CREWS)".

- **2022-2023**, *Lead-PI* - Modeling Idaho COVID-19 Disease Severity ($92,414). Funded by the State of Idaho. Development of models which utilize microsimulation results to predict COVID-19 outcomes (deaths, cases, and hospitalizations). Conducted on behalf of Idaho's Department of Health and Welfare (IDHW).

- **2022-2025**, *Co-PI* - Idaho Tobacco Prevention and Control Surveillance and Evaluation ($206,588). Funded by the State of Idaho. Grant spans 3 years and will use modeling and geospatial analysis to provide decision-making tools and data for the State of Idaho's Tobacco program.

- **2022-2023** *Co-PI* - Modeling Idaho COVID-19 Health Disparities ($70,179). Funded by the State of Idaho. Grant spans one year, and will develop modeling approaches to evaluate COVID-19 health factors. Conducted on behalf the Idaho's Department of Health and Welfare (IDHW).

- **2020-2021**, *Postdoctoral Fellow* - University of Idaho Pandemic Modeling Group (http://pandemic-modeling.uidaho.edu) Worked as part of a collaborative, multi-disciplinary team to develop research associated with SARS-CoV2. Current manuscripts in development associated with: 1) COVID risk prevalence, 2) structural equation modeling in relationship to COVID behavioral perceptions, as well as 3) applying agent based modeling techniques to simulate COVID spread in rural communities.

- **2020-2021** *Co-PI* - Small Area Estimation of Health Indicators for the State of Idaho ($30,000). Funded by the State of Idaho Department of Health and Welfare (IDHW), developed modeling approaches to estimate health indicators (obesity, overweight, diabetes) at refined spatial scales, using spatial microsimulation approaches. Paper forthcoming.

- **2018-2020:** *Collaborator* - Socio-ecological feedback systems and soil health. Funded by the National Socio-Environmental Synthesis Center (SESYNC) under NSF grant #'s DBI-1052875 and DBI-1639145, this project brings together 15 leading scientists in soil health, agricultural policy, and climate resilience to explore modeling techniques, and to assess human relationships to soil health.

- **2015-2020:** *Research Assistant* - Climate Impacts Research Consortium (CIRC) NOAA RISA Grant NA15OAR4310145. Active team member, as a PhD candidate, of the data mining portion of the project, exploring relationships of drought to agricultural commodity loss, using machine learning techniques (https://pnwcirc.org).

- **2011-2017:** *Environmental Data Manager* - Regional Approaches to Climate Change for Pacific Northwest Agriculture. USDA Grant # 2011-68002-30191. REACCH examined the relationships of climate on cereal production systems in the Pacific Northwest, by bringing together over 200 scientists from Oregon State, Washington State, University of Idaho, and the USDA ARS (http://www.reacchpna.org)

- **2010-Present:** *Collaborator* - Research efforts with social scientists/psychologists in applying modeling techniques to child development issues. Most recent work involves the development of machine learning methods to explore child development variations from datasets collected worldwide (manuscript submitted to PLOS 1, included in application materials). Overall, four papers generated in association with this research (listed in *publications* section).

SUBMITTED GRANTS UNDER REVIEW

- **2025-2027**: *Co-PI* – National Science Foundation (NSF) Regional Resilience Innovation Incubator (R2I2): "First Foods Futures (F3) Consortium: Tribal Nations food-water-cultural sovereignty in response to climate impacts in the Columbia River Basin". 2 year, $500,000 proposal.

PROFESSIONAL EXPERIENCE

Assistant Professor, University of Idaho – August 2024 – Present

- Teaching instruction of cross reality/augmented reality and associations with modeling outputs
- Research teams integrate spatiotemporal modeling with differing modeling and visualization methodologies.
- Research efforts can be found at https://haclab.uidaho.edu

Modeling Core Director, University of Idaho, Institute for Modeling, Collaboration, and Innovation
January 2024 – Present

- Overseeing IMCI postdoctoral fellows with regards to research program and professional development.

Research Scientist, University of Idaho, Institute for Modeling, Collaboration, and Innovation
June 2022 – Present

- Engaged in climate and agricultural research, with intersections in human health (https://haclab.uidaho.edu)
- Actively working on publications which look at spatiotemporal variations of COVID-19 deaths in relationship to a wide set of variables, including socioeconomics, demographics, political ideology, vaccination rates, and population density.
- Engaged in multiple programs of research that focus on novel spatiotemporal modeling approaches to understanding climate and human health interactions. Co-PI on 6M NSF award to model climate associations with underserved populations.
- Working with a team at the University of Texas/Austin to apply natural language processing (NLP) approaches to connect social media to pandemic outcomes.

Postdoctoral Fellow, University of Idaho, Institute for Modeling, Collaboration, and Innovation
October 2019 – May 2022

- Participated in geospatial modeling initiatives across differing disciplines and funding streams.
- Developed population synthesis modeling for Idaho health indicator analysis. Developed iterative proportional fitting algorithms which use the Center for Disease Control's (CDC) Behavioral Risk Factors Surveillance System (BRFSS) survey instruments.
- Research work as part of the University of Idaho's Pandemic Modeling Group (http://pandemic-modeling.uidaho.edu), which developed modeling techniques to explore health behavior and risk associated with SARS-CoV2. Two publications from work in *PLOS One* and *Ethnicity and Health*.

Data Scientist, Global Parametrics Ltd - London
January 2019 – October 2019

- Developed machine learning models to predict agricultural commodity yields for South Africa and the Democratic Republic of Congo (DRC), which were used to construct derivative contracts for investment and insurance firms.
- Model development used global climate model forecasts as inputs, applied recursive feature elimination in conjunction with random forest algorithms.

Ph.D. Student and Researcher, Climate Impacts Research Consortium (http://pnwcirc.org)
July 2014 – September 2019

- As part of the Regional Integrated Sciences Assessment (RISA) team for the Pacific Northwest, worked to develop data mining and machine learning models that predict agricultural outcomes.
- Worked on spatiotemporal drought impacts related to agriculture, using Python and R.
- Collaborated with a diverse grouping of scientists @ Oregon State, University of Washington, University of Oregon, and University of Idaho.

Environmental Data Manager, University of Idaho, Regional Approaches to Climate Change (REACCH)
December 2011 – March 2017

- Conducted data analysis for a USDA/NIFA funded $20M Coordinated Agricultural Project (CAP) to improve the long-term profitability of cereal production systems in the Pacific Northwest, under ongoing and projected climate change (http://reacchpna.org).

- Managed data architecture aspects and GIS components among 200 individuals on the CAP team. Facilitated research work and datasets across diverse areas including climate modeling, emissions analysis, cropping systems, biotics, hydrology, and socio-economic factors. Implemented data standards across three research universities (University of Idaho, Washington State University, and Oregon State University).

- Developed data cataloging and dynamic web applications using Python, Java, R, and ArcGIS Server(http://reacchpna.org/data-management).

- Led 2014 Python-focused scientific discovery sessions for students involved in ecological and agricultural research at the University of Idaho.

Geographic Information Officer, City and County of San Francisco
December 2000 – November 2005

- Served as technical lead and senior manager for several citywide business systems, including property assessment, tax collection, real estate, and public works. Led geospatial science/development teams as large as 20 individuals.

- As the City and County of San Francisco's Geographic Information Officer, developed and implemented SF's first Enterprise GIS, using common geospatial methods to disseminate information.

- Led development teams constructing applications in ArcGIS, ArcGIS Server, ArcIMS, geospatial database management, metadata specification development, as well as map construction.

Senior GIS Analyst, Marin Municipal Water District
May 1995 – December 2000

- Served as senior analyst and manager of GIS activities at Marin County's primary water utility.
- Led development of MMWD's infrastructure and natural resources technology systems thru the use of GIS technologies on Linux and Unix.
- Administered MMWD's technical architecture, including UNIX/Windows, along with DB systems (Oracle, DB2).
- Served as the political/technical representative for MMWD's technology efforts, as it relates to working with several multi-agency consortiums (Marin Telecommunications Agency).
- Served as the project manager for natural resource GIS development.

EXPERT WITNESS TESTIMONY

- **Expert Witness** – Willits vs. City of Los Angeles – 2013. Provided data mining and geospatial technology analysis for a class action lawsuit related to the Americans with Disabilities Act (ADA). Settlement reached in case 2015 - $1.4 billion awarded to plaintiffs - largest disability class action lawsuit settlement in U.S. History.
- **Expert Witness** – Piper vs. RGIS – 2009. Provided data mining/geospatial technology analysis for a nationwide class action lawsuit related to employment discrimination for related to a major big box organization with locations across the United States.

DATA SCIENCE RESEARCH EXPERIENCE

Python and R

- Extensive experience in development in R and Python (http://github.com/erichseamon). Use both daily to analyze, organize, and statistically explore integrated biological, climatological, and social datasets. Regularly deploy shiny server web applications using R and expose these on my http://haclab.uidaho.edu research team web site. Regularly use Jupyter notebooks to organize and collaborate using python.
- As part of my research work for REACCH and CIRC, used Python and R to integrate data. Data aggregation, function construction, vectorization and loops, data frame, array and raster construction, as well as leaflet/GDAL/Geos usage are all common techniques that I use regularly.
- All R and python work at the University of Idaho are deployed on Linux servers that I manage and maintain to run Jupyter, R/Rstudio server, Solr, Apache, and Tomcat. Familiar with all systems and security complexities needed to expose and implement data science methods in this manner (port exposure, SElinux, remote mounts, apache and tomcat web service architectures, as well as python web API deployment for pickled data model exposure).
- Have collaborated with human health researchers to produce several publications that utilize geospatial modeling techniques (See *Publications*)

Algorithmic Modeling

- Actively use algorithmic data mining and filtering techniques on natural resource datasets for feature extraction, transformation, and model development, including decision trees, random forest, neural networks/convolutional neural networks, Naïve Bayes, Support Vector Machines, and Long-Short Term Memory (LTSM) neural networks.

- Developed predicative models for multiple research teams to examine agricultural insurance commodity loss in comparison to climate and other social/demographic factors.

GIS and Geospatial Modeling

- Experienced with all forms of Geographic Information Systems (GIS) software, including ArcGIS Desktop, ArcGIS Server, ArcSDE, ERDAS, GRASS, QGIS, MapInfo, MapReduce, Leaflet, Gdal/Geos. Use Leaflet regularly to deploy R-based spatial datasets. Experienced with map projections, coordinate systems, spatial statistics, georeferencing, and geo-metadata development.

- Experienced in geospatial data mining with regards to large databases/systems – and providing analytical perspectives (report, presentation, data model review, etc.).

TEACHING EXPERIENCE

Spring 2025. Cross Reality Technology I. CAA-VTD 271. 29 Students. VTD 271 is structured as an introduction further to the development of immersive and interactive virtual worlds, as well as to extending knowledge into Augmented Reality (AR) and immersive Virtual Reality (VR).

Fall 2024. Cross Reality Technology II. CAA-VTD 372. 24 Students. VTD 372 is structured to further knowledge and experience in developing immersive and interactive virtual worlds, as well as to extending knowledge into Augmented Reality (AR) and immersive Virtual Reality (VR).

Spring 2022: Advanced Geospatial Analysis. BCB 503. 25 students. Short course on advanced geospatial topics, including spatial autoregression, kriging, geographically weighted regression, and geographically weighted random forest. Course materials can be found at https://github.com/erichseamon/BCB503_advanced_geospatial_workshop

Spring 2021: Advanced Geospatial Analysis. BCB 503. 25 students. Short course on advanced geospatial topics, including spatial autoregression, kriging, geographically weighted regression, and geographically weighted random forest. Course materials can be found at https://github.com/erichseamon/BCB503_advanced_geospatial_workshop

Spring 2020: Introductory Geospatial Analysis. BCB 503. 30 students. Short course on introductory geospatial analysis in R.

Spring 2016: Geospatial Analysis for Natural Resource Management, Forestry 375. 70 students, one teaching assistant. 4 credits. Included computational analysis labs.

STUDENT/POSTDOCTORAL MENTORSHIP

Mairin Rogers (2024) PhD Student, University of Idaho Center for Resilient Communities (CRC). PhD student working on NSF EPSCoR Track 2 climate perceptions research (2024-2027).

Scott Campbell (2024) PhD Student, University of Idaho Center for Resilient Communities (CRC). PhD Student, University of Idaho Center for Resilient Communities (CRC). PhD student working on NSF EPSCoR Track 2 climate perceptions research (2024-2027).

Edmund Fao (2024) MS Student, University of Idaho Mathematics and Statistics Department. Working on spatial statistics methods that associate social determinants of health to diabetes and obesity.

Nurbanu Bursa (2022). University of Idaho Postdoctoral Fellow, IMCI. Mentorship and training related to geospatial mathematical modeling, supported by State of Idaho BRFSS COVID-19 2022-2023 grant ($92K).

Caroline Ludwig (2022). University of Idaho Graduate Student, Geography. Mentorship and training associated with geospatial analysis and map construction, in association with State of Idaho BRFSS COVID-19 2021 grant.

Felino Macatuno (2020-2021). University of Idaho Undergraduate in Mathematics. Mentorship and training in computational processes and R

Trevor Griffin (2020-2021). University of Idaho Undergraduate in Mathematics. Training in R and data transformations

Tristan Moxley (2021). University of Idaho Graduate Student in Statistics. Computational mixed model development and mentorship, associated with SARS-CoV2.

Stephan Fricke (2015-2016). University of Idaho Graduate Student, Geography. Mentorship and training associated with python geospatial analysis and model development, climate analysis.

RELEVANT COURSEWORK

Geomorphology	Computational Data Analysis	Petrology
Surficial Hydrology	Analytics and Machine Learning	Multivariate Analysis
Geographic Info. Systems	Stratigraphy	Advanced Climatology
Groundwater Hydrology	Scanning Electron Microscopy	Advanced Structural Geology