

Wyatt Madden M.S.

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Department of Biostatistics & Bioinformatics
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EDUCATION	Emory University PhD in Biostatistics	2021 – Present
	Montana State University MS in Statistics	2017 – 2019
	University of California, Santa Cruz BA, Economics & Mathematics <i>With Honors</i> BA, Film & Digital Media <i>With Honors</i>	2011 – 2015
RESEARCH INTERESTS	Bayesian computation, spatio-temporal modeling, probabilistic machine learning & deep learning, data integration, Bayesian nonparametrics, variational inference and sequential Monte Carlo methods. Applications include viral surveillance, disease ecology, epidemiology and quality control.	
PUBLICATIONS	<ol style="list-style-type: none">1. M. D. Cherne, A. B. Gentry, A. Nemudraia, <i>et al.</i>, “SARS-CoV-2 is detected in the gastrointestinal tract of asymptomatic endoscopy patients but is unlikely to pose a significant risk to healthcare personnel,” <i>Gastro Hep Advances</i>, 2022, <i>Full Paper</i>.2. A. Hoegh, A. Peel, W. Madden, M. Ruiz-Aravena, A. Morris, A. Washburne, and R. Plowright, “Estimating viral prevalence with data integration for adaptive two-phase pooled sampling,” <i>Ecology and evolution</i>, vol. 11, no. 20, pp. 14 012–14 023, Sep. 2021, <i>Full Paper</i>.	
INVITED PRESENTATIONS	Compartmental Models: Deterministic & Bayesian Approaches Rocky Mountain Data Science Bozeman, Montana	Nov 2020
	R Studio in Action - DataFest Montana ASA Chapter Meeting Bozeman, Montana	Oct 2018
PROFESSIONAL EXPERIENCE	Bozeman Disease Ecology Lab Statistician	Bozeman, MT Jan 2019 – 2021
	<ul style="list-style-type: none">• Researched spatio-temporal data integration techniques for viral surveillance and prediction.• Provided statistics & machine learning consulting for international team of scientists.• Developed R packages to automate routine statistical analysis, visualization, and wrangling.• Designed and implemented SQL database and data pipelines, ensuring data quality and access.	
	Weyerhaeuser Statistics Intern	Seattle, WA May 2018 – August 2018
	<ul style="list-style-type: none">• Implemented machine learning models aimed at lowering defects in industrial processes, after diagnosing issues through exploratory visualization and analyses.• Formulated mixed-model experimental designs.• Developed Shiny web applications to automate data cleaning/wrangling workflows.	
	Accenture Analyst	Sacramento, CA Jul 2016 – Apr 2017
	<ul style="list-style-type: none">• Improved loan approval processes through analysis of credit profiles.	

CONSULTING & COLLABORATION EXPERIENCE	Collaborator	<i>Aug 2018 – Dec 2018</i>
	Statistical Consulting And Research Services (SCRS) Department of Mathematical Sciences, Montana State University	
	Volunteer	<i>Jan 2018 – Apr 2018</i>
	Statistics Without Borders (SWB) Under direction of Dr. Nicole Carnegie, Montana State University	
TEACHING	Instructor	<i>Fall 2017, Spring 2018, Fall 2018</i>
	MATH 105 - Contemporary Mathematics Department of Mathematical Sciences, Montana State University	
AWARDS	Outstanding Graduate Student Award, Montana State University	<i>May 2019</i>
	Excellence in Data Visualization, ASA Data Fest - Montana State University	<i>Apr 2018</i>
SERVICE	Emory BIOS Student Council, Pre-quals Representative	<i>Spring 2022 – Present</i>
	Georgia Statistics Day 2021, Student Volunteer	<i>October 11th, 2021</i>
	Bozeman Environmental Statistics Group, Member	<i>2019 – 2021</i>
	American Statistical Association Student Chapter at Montana State, Treasurer	<i>2018 – 2019</i>
MEMBERSHIP	American Statistical Association	