

# Curriculum Vitae

## Spencer Riley

### Contact Information

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### Development Experience

C, Flutter, Javascript, Java, Python, R, IDL,  
Shell, HTML,  
Docker, Jupyter, Kubernetes,

### Work History

Present	<b>Graduate Teacher's Assistant</b>	<b>Montana State University</b>
24 Aug 2022		
29 Jul 2022	<b>Post-Bachelor's Researcher</b>	<b>Institute of Complex Additive Systems Analysis</b>
22 May 2022	<b>Research Intern</b>	
05 Sep 2017	During my time in this position, my contributions to projects I have worked on include: <ul style="list-style-type: none"><li>• Data preprocessing for language detection models</li><li>• Developing analytical methods for RF and Bluetooth models</li><li>• Internet-Of-things research and metadata configuration</li><li>• Writing Helm Charts for several Kubernetes applications</li></ul> The last project I worked on applied acoustic analysis as a method to detect aircraft.	
16 Aug 2017	<b>High School Work Study</b>	<b>National Security Agency</b>
06 Sep 2016	As a requirement of this position, I had to pass a background check and a federal investigation to obtain a Top Secret security clearance. The tasks I was assigned involved clerical work relating to inventory, data transfer requests, and documentation management. In addition, I was a part of the effort to prepare for the Inspector General's inspection.	

### Education

Present	<b>Ph.D. Physics</b>	<b>Montana State University</b>
Aug 2022	Dissertation in TBA	<b>GPA: TBA</b>
May 2022	<b>B.Sc. Physics</b>	<b>New Mexico Institute of Mining and Technology</b>
Aug 2017	Astrophysics and Atmospheric Physics Option Minor in Mathematics	<b>GPA: 3.28</b>

### Publications

18 Mar 2022	<b>Atmospheric precipitable water vapor and its correlation with clear-sky infrared temperature observations</b> <i>Vicki Kelsey, Spencer Riley, Kenneth Minschwaner</i> Atmospheric Measurement Techniques 10.5194/amt-15-1563-2022
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## Presentations

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Apr 2022 Lubbock, TX	<b>The Precipitable-Water Model Analysis Tool: An open-source suite for estimating precipitable water with low-cost instrumentation.</b> <i>Spencer Riley, Vicki Kelsey</i> National Weather Service, 5 <sup>th</sup> Texas Weather Conference
Apr 2022 Lubbock, TX	<b>Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Observations</b> <i>Vicki Kelsey, Spencer Riley</i> National Weather Service, 5 <sup>th</sup> Texas Weather Conference
Jan 2020 Boston, MA	<b>Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Readings</b> <i>Vicki Kelsey, Spencer Riley</i> American Meteorological Society Annual Meeting 100
Nov 2019 Providence, RI	<b>Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Readings: Data Analysis</b> <i>Spencer Riley, Vicki Kelsey</i> Physics Congress 2019

## Research Projects

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Present	<b>The Precipitable Water Project</b>
Jan 2019	The purpose of the research is to develop a method to estimate the amount of precipitable water from the effective temperature using low-cost instrumentation. As a part of the data collection process, we collected daily ground and sky temperatures to be analyzed by our preprocessing and analysis software suite. <b>Collaborators:</b> <i>Vicki Kelsey, Dr. Kenneth Minschwaner</i> <b>Documentation Page:</b> <code>pmat.app</code>

## Development Projects

Maintained v2.0	<b>Precipitable-Water Model Analysis Tool</b> An open source software suite for the analysis of precipitable water. <b>Documentation Page:</b> <code>docs.pmat.app</code>
Not Maintained v1.0.2	<b>pacviz</b> A R package comprised of informal, radial data visualizations for regression and comparative analysis. <b>Documentation Page:</b> <code>pacviz.sriley.dev</code>