

Curriculum Vitae
Spencer Riley



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Development Experience

C Flutter Javascript Java Python R Bash HTML Docker Kubernetes Android
Arduino Raspberry Pi

Work History

Present	Graduate Teacher's Assistant	Montana State University
24 Aug 2022		
29 Jul 2022	Post-Bachelor's Researcher	Institute of Complex Additive Systems Analysis
22 May 2022	Research Intern	
05 Sep 2017	During my time in this position, my contributions to projects I have worked on include: <ul style="list-style-type: none">• Data preprocessing for language detection models• Developing analytical methods for RF and Bluetooth models• Internet-Of-things research and metadata configuration• Writing Helm Charts for several Kubernetes applications The last project I worked on applied acoustic analysis as a method to detect aircraft.	
16 Aug 2017	High School Work Study	National Security Agency
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	Ph.D. Physics	Montana State University
Aug 2022	Dissertation in TBA	GPA: TBA

May 2022	B.Sc. Physics	New Mexico Institute of Mining and Technology
Aug 2017	Astrophysics and Atmospheric Physics Option Minor in Mathematics	GPA: 3.28

Publications

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

Apr 2022 Lubbock, TX	The Precipitable-Water Model Analysis Tool: An open-source suite for estimating precipitable water with low-cost instrumentation. <i>Spencer Riley, Vicki Kelsey</i> National Weather Service, 5 th Texas Weather Conference
Apr 2022 Lubbock, TX	Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Observations <i>Vicki Kelsey, Spencer Riley</i> National Weather Service, 5 th Texas Weather Conference

Jan 2020 Boston, MA	Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Readings <i>Vicki Kelsey, Spencer Riley</i> American Meteorological Society Annual Meeting 100
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Nov 2019 Providence, RI	Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Readings: Data Analysis <i>Spencer Riley, Vicki Kelsey</i> Physics Congress 2019
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Research Projects

Present

Jan 2019

The Precipitable Water Project

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.

Collaborators: *Vicki Kelsey, Dr. Kenneth Minschwaner*

Documentation Page: `pmat.app`

Development Projects

Maintained

v2.0

Precipitable-Water Model Analysis Tool

An open source software suite for the analysis of precipitable water.

Documentation Page: `docs.pmat.app`

Not Maintained

v1.0.2

pacviz

A R package comprised of informal, radial data visualizations for regression and comparative analysis.

Documentation Page: `pacviz.sriley.dev`