





Spencer Riley

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Development Experience —

CFlutterJavascriptJava

PythonR

BashHTML

DockerKubernetes

AndroidArduinoRaspberry 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 modelsDeveloping analytical methods for RF and Bluetooth modelsInternet-Of-things research and metadata configurationWriting 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	GPA: 3.28
	Minor in Mathematics	

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.
Spencer Riley, Vicki Kelsey
National Weather Service, 5th Texas Weather Conference

Apr 2022
Lubbock, TX

Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Observations
Vicki Kelsey, Spencer Riley
National Weather Service, 5th Texas Weather Conference

Jan 2020
Boston, MA

Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Readings
Vicki Kelsey, Spencer Riley
American Meteorological Society Annual Meeting 100

Nov 2019
Providence, RI

Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Readings: Data Analysis
Spencer Riley, Vicki Kelsey
Physics Congress 2019

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`