

Spencer Riley

Contact Information

Cell : (505) 205 - 9115
Website : sriley.dev
Email : academic@sriley.dev
Github : [github.sriley.dev](https://github.com/sriley.dev)
Trello : board.sriley.dev

Development Experience

C, Flutter, HTML, IDL, JavaScript, Python, R, Shell,
Docker, Jupyter, Kubernetes,

Work History

| | | |
|----------------|--|--|
| <i>Present</i> | Graduate Teaching Assistant | [Montana State University] |
| 24 Aug 2022 | Within the Physics Department, my responsibilities while in this position involved: <ul style="list-style-type: none">• Supervising and assisting in undergraduate physics laboratory classes.• Assisting instructors with grading assignments.• Tutoring physics students With this position, I can more effectively add zero and multiply by one. | |
| 29 Jul 2022 | Post-Bachelor's Researcher | [Institute of Complex Additive Systems Analysis] |
| 22 May 2022 | Research Intern | |
| 22 May 2022 | During my time in these positions, 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. | |
| 05 Sep 2017 | | |
| 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

| | | |
|----------------|---|---|
| <i>Present</i> | Ph.D. Physics | [Montana State University] |
| Aug 2022 | | GPA: 2.85 |
| 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**
Vicki Kelsey, Spencer Riley, Kenneth Minschwaner
Atmospheric Measurement Techniques
10.5194/amt-15-1563-2022

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](#)