



# Spencer Riley

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## Skills

Programming Languages

C Bash Javascript Python R

## Development Projects

AtmosAccess:

Python  
atmospheric data

pacviz:

R  
visualization

Precipitable-Water Model Analysis Tool:

R  
Python  
Docker  
regression analysis

## Work History

Present

05 Sep 2017

**Research Intern**

**Institute of Complex Additive Systems Analysis**

The position involved tasks regarding a variety of different projects around the theme of complex systems analysis. As a part of a team, I have worked on projects regarding data preprocessing for language detection models, analysis of RF and Bluetooth models, and Internet-Of-Things research and development.

16 Aug 2017

06 Sep 2016

**High School Work Study**

**National Security Agency**

The position required a thorough background check, federal investigation including a polygraph, as part of the application in order to obtain Top Secret security clearance. Most of the tasks that were assigned revolved around clerical work, specifically inventory and data transfer requests added with Inspector General inspection preparations.

## Education

May 2022

Aug 2017

**B.Sc. Physics**

**New Mexico Institute of Mining and Technology**

Astrophysics and Atmospheric Physics Option

Minor in Mathematics

**GPA: 3.26**

## Publications

Under Review

**Atmospheric Precipitable Water and its Correlation with Clear Sky Infrared Temperature Observations**

*Vicki Kelsey, Spencer Riley, Kenneth Minschwaner*

Atmospheric Measurement Techniques

10.5194/amt-2021-130

## Presentations

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**

This research is based on developing a computational model of the relationship between daily precipitable water measurements and the atmospheric temperature. The goal of this research is to develop and utilize the relationship using low cost instrumentation to deduce the amount of precipitable water from the effective temperature.

**Collaborators:** *Vicki Kelsey, Dr. Kenneth Minschwaner*

**Documentation Page:** docs.pmat.app