

Spencer Riley



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Skills -

Programming Languages



Javascript

R Python

Development Projects -

AtmosAccess:

Python

atmospheric data

pacviz:



visualization

Precipitable-Water Model Analysis Tool:



Python

Docker

regression analysis

Work History

Present

Research Intern

Institute of Complex Additive Systems Analysis

05 Sep 2017

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

High School Work Study

National Security Agency

06 Sep 2016

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

The Precipitable Water Project

Jan 2019

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