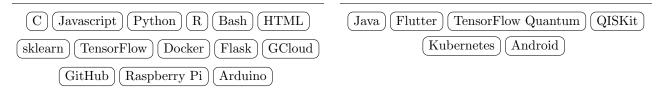


Development Experience

Currently Learning



Work History

Present Research Intern

Institute of Complex Additive Systems Analysis

 $05~{\rm Sep}~2017$

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 **B.Sc.** Physics Astrophysics and Atmospheric Physics Option

New Mexico Institute of Mining and Technology

Aug 2017 Minor in Mathematics

GPA: 3.28

Publications

Published

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

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: pmat.app

Development Projects

Maintained

pacviz

v1.0.1

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

Documentation Page: pacviz.sriley.dev

 $\begin{array}{c} {\rm Maintained} \\ {\bf v} 2.0 \end{array}$

Precipitable-Water Model Analysis Tool

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

Documentation Page: docs.pmat.app