Anna VanAlstine

Dept. of Meteorology & Atmospheric Science, The Pennsylvania State University
530 Walker Building, University Park, PA 16802

Education

The Pennsylvania State University — University Park, PA
Ph.D. in Meteorology & Atmospheric Science — *2027 (expected)*
Bachelor of Science in Meteorology and Atmospheric Science — *May 2022*
Option: Atmospheric Science

The Pennsylvania State University — Erie, PA
Bachelors of Science in Finance — *May 2010*

Projects

Analysis of Doppler Velocity in Three-Body Scattering Signatures for Use in Hail Size Estimation
Supervisor: Dr. Matthew Kumjian — June 2021 – Present

- Investigate utility of RADAR Doppler velocity in three-body scattering signature for hail sizing estimation.
- Write algorithmic script in MatLAB on Linux OS for analysis and visual presentation of findings.
- Poster presentation acceptance at the American Meteorological Society's 21st Annual Student Conference to be held 22-23 January 2022

SOM ANALYSIS of the MJO | *Advanced Atmospheric Dynamics* — Aug. 2020 – Dec. 2020

- Self Organizing Maps analysis on surface air temperature for three domains
- Calculated the frequency of occurrence for each SOM pattern at different time lags
- Interpreted and presented results in course talk and paper

Climate Research Project | *Application of Computers to Meteorology* — Jan. 2020 – May 2020

- Analyzed climate variability in snow cover extent and snow depth observations for time period of January 1967 to December 2019 by using CDR, NOAA and NASA data-sets.
- Utilized python modules such as numpy, pandas, cartopy, matplotlib, and additional various imported modules for analysis and visualization of findings
- Interpreted and presented results in course talk and paper

Professional Experience

Financial Assistant 3 — December 2018 – Present
The Pennsylvania State University — *University Park, PA*

- Budgetary reporting/processing for the Neil Gehrels SWIFT Mission Operations, the JPL NEID Spectrograph Instrumentation Project, NASA US Team contributions of ESA Athena Mission, Nanofabrication and Astronomical Instrumentation Program, and the ESCAPE and Arcus Proposed Mission concepts
- Facilitate, create, and track project budgets, work breakdowns, and rough order estimates with Principal Investigators and program managers
- Analyze accounting records for accuracy and completeness; research and solve basic accounting problems.
- Organized and directed local organizing committee for Panchromatic Transients in the 2020s conference.
- Developed and deployed meeting website for Panchromatic Transients in the 2020s conference.

Member Business Relationship Manager — Jan. 2017 – Dec. 2018
Small Business Specialist — *Oct. 2015 - Dec. 2016*
Loan Administration and Servicing Clerk — *Jan. 2014 - Oct. 2015*
SPE Federal Credit Union — *State College,PA*

Technical Skills

Languages: MATLAB, Python, HTML/CSS
Operating Systems: Mac OS, Linux, Windows
Software Tools: Adobe DreamWeaver, LaTeX, R Studio, MS Office Suite, Adobe Acrobat Pro, Spyder

Awards

University Women's Club Scholarship Recipient — 2019 – 2022