Anna VanAlstine

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

Education

The Pennsylvania State University — University Park, PA
Ph.D. in Meteorology & Atmospheric Science — *2026 (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

Relating Polarimetric Radar Measurements to QLCS Cold Pool Properties and Damage Potential
Supervisor: Dr. Matthew Kumjian — August 2022 – Present

- Identify operationally observable radar-based proxies that lead to more robust indication of QLCS risk potential.
- Present novel techniques to illuminate QLCS cold pool heterogeneities and risk potential.
- Poster presentation at the American Meteorological Society's 40th Conference on Radar Meteorology held 28 August - 01 September 2023

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.
- Oral presentation at the American Meteorological Society's 40th Conference on Radar Meteorology held 28 August-01 September 2023
- Oral presentation at the American Meteorological Society's 30th Conference on Severe Local Storms held 24-29 October 2022
- Poster presentation acceptance at the American Meteorological Society's 21st Annual Student Conference to be held 22-23 January 2022

Professional Experience

Graduate Research Assistant — Aug. 2022 – Present
The Pennsylvania State University — *University Park, PA*

- Develop novel analysis techniques for dual-polarization Doppler radar data, applicable to exploring the links between the radar observables and microphysical properties of convective storms.

Financial Assistant 3 — Dec. 2018 – Aug. 2022
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
- Facilitated, created, and tracked project budgets, work breakdowns, and rough order estimates with Principal Investigators and program managers

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
The Spiros G. Geotis Prize Recipient — 2023