Andrew DeLaFrance

CURRICULUM VITAE

Department of Atmospheric Sciences
University of Washington
408 Atmospheric Sciences–
Geophysics (ATG) Building
Box 351640
Seattle, WA 98195-1740

adelaf@uw.edu
https://atmos.uw.edu/~adelaf/
https://orcid.org/0000-0002-5292-7698
https://publons.com/researcher/3240403/andrew-delafrance/

EDUCATION

Completed 2018 — **Bachelor of Science**, *University of Nevada, Reno*
Major: Atmospheric Science
Minor: Mathematics
Thesis Title: *Evaluation of synoptic-scale patterns during extreme temperature and precipitation events in Alaska.*
Advisor: Stephanie McAfee

2018 – Current — **Master of Science**, *University of Washington*
Atmospheric Science, Expected 2021
Thesis Title: *Ice microphysical processes in winter storms encountering complex terrain*.
Committee: Lynn McMurdie (chair), Angela Rowe, Dale Durran, Roger Marchand

Doctor of Philosophy, *University of Washington*
Atmospheric Science, Expected 2024

DISTINCTIONS

2016 – 2018 — **Dean's List**, all semesters enrolled in the Atmospheric Sciences program at the *University of Nevada, Reno*

RESEARCH EXPERIENCE

2018 – Present — **Graduate Research Assistant**
University of Washington, Department of Atmospheric Sciences
Advisors: Lynn McMurdie, Angela Rowe

- Using OLYMPEX field campaign radar and aircraft in-situ measurements to connect ice microphysical processes to radar retrievals and surface-based measurements in complex terrain
- Developing a robust bright band detection algorithm for use with NASA's dual-polarization S-Band radar
- Developing a method of identifying enhanced microphysical processes within the cloud ice layer using ground-based radar

2017 – 2018 **Undergraduate Researcher**
University of Nevada, Reno, Department of Geography
Advisor: Stephanie McAfee

- Conducted an evaluation of the synoptic environments that produce the most extreme temperature and precipitation events in the state of Alaska using compositing and statistical methods
- Prepared a GIS analysis of recent seasonal forecast skill for extreme weather events in Alaska

2017 **Undergraduate Researcher**
University of Nevada, Reno, Department of Geography
Advisor: Stephanie McAfee

- Worked with general circulation model (GCM) output and monthly reanalysis data to evaluate the impact of natural variability on bias correction in high-latitude regions
- Applied statistical methods to characterize the stability of climate models at historical and projected time periods

PEER-REVIEWED PUBLICATIONS

DeLaFrance, A. and McAfee, S.A., 2019: Evaluation of synoptic-scale patterns during extreme temperature and precipitation events in Alaska. Int. J. Climatol., 39: 3134– 3146. https://doi.org/10.1002/joc.6006

McAfee, S.A., **DeLaFrance, A**, Walsh J.E., (in prep): Implications of internal variability for climate model evaluation.

COMMUNITY INVOLVEMENT

- **Peer Reviewer** for International Journal of Climatology
- **Outreach Program**, ongoing volunteer participation in the Department of Atmospheric Sciences student-run outreach program
- **Mentoring Program**, ongoing mentoring relationship with a mentee of the Atmospheric Sciences undergraduate program as part of a student-led program

PROFESSIONAL BACKGROUND

2015 – 2018 **Owner**, *Point Precision, LLC*. Reno, NV

- Product and mechanical design using 3D modeling software
- Prototype and production machining of mechanical components serving a wide spectrum of industries