Matthew Bradley Ammon

3301 12th Ave. SE Apt. #1913 B, Norman, OK 73072 • matthew.b.ammon-1@ou.edu • 303-845-2134

Education

Bachelor of Science in Meteorology — University of Oklahoma – Norman, OK
3.4 GPA — August 2019 – May 2023

- Member of Oklahoma Weather Lab (OWL) 2019 – Present
- Member of Student Chapter of the American Meteorological Society & National Weather Association (SCAN) 2019 – Present
- OU club golf team member 2021 – Present

Past Education

- High school – 4.0 GPA – University of Colorado Denver concurrent enrollment, and 2 years of engineering at Bollman Technical Center

Academic Projects

- Senior capstone project (undergraduate): Analyzed ERA5 reanalysis data to quantify synoptic patterns related to European heat waves and their climatology
- Senior capstone project (high school): Designed, 3D printed, assembled, and programmed a radiosonde and successfully launched weather balloon. Then processed and analyzed raw radiosonde data

Work and Research Experience

The Cooperative Institute for Severe and High Impact Weather Research and Operations (CIWRO) — Norman, OK
March 2022 – Present

- 10 – 20 hours a week
- Plot and analyze Lidar, AERI, and microwave radiometer data from the *Collaborative Lower Atmospheric Mobile Profiling System* (CLAMPS) from various field research projects including VORTEX-SE and PERiLS
- Analyze differences between data collected by CLAMPS, and model forecast data to understand why various events in the southeast did or did not play out how they were expected to
- Use CLAMPS data from nearby tornado-producing storms to better understand tornado-genesis in the southeast from a storm-scale perspective
- Compare changes in atmospheric profiles based on CLAMPS data, to observed radar and satellite images to better understand convective initiation mechanisms in the southeast
- Utilize CLAMPS data to analyze dynamic processes in the atmospheric boundary layer over complex terrain

CIWRO - PERiLS Field Research Campaign — Norman, OK, Yazoo City, MS
February 2023 – Present

- 20 - 30 hours a week (varies)
- Work as ground station operator and visual observer for collection of atmospheric boundary layer data ahead of convection using unmanned aerial system (UAS) drones

The Ranch Country Club - Outside Services — Westminster, CO
February 2020 – August 2022

- 40 hours a week in the summers
- Maintained operations of the golf course, serviced members, and fostered a positive experience

Skills

- Advanced in Python
- Proficient in JavaScript, C++
- Arduino Programming
- Processing and analysis of lidar data
- Experience with CAD
- Proficient with QGIS and ArcGIS
- Data Analysis and Problem Solving
- Numerical Weather Model Interpretation
- Communication
- Collaboration/Working in a Group

References

Dr. Tyler Bell
405-325-1785
tyler.bell@ou.edu

Dr. Elizabeth Smith
304-356-6973
elizabeth.n.smith@ou.edu

Mark Avery
678-595-7979
mavery@theranchcc.com