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EDUCATION

The Ohio State University, Columbus, OH   2023- Present
Direct-to-PhD, Atmospheric Science,
GPA: 3.72

Central Michigan University, Mt. Pleasant, MI   Graduated: May 2023
Bachelor of Science, Meteorology,
Minor: Mathematics
GPA: 3.87

Washtenaw Community College, Ann Arbor, MI   Graduated: May 2014
Associate of Arts. Digital Video Production
GPA: 3.7

HONORS / AWARDS
- Central Michigan University President list (Fall 2019-Spring 2020)
- Central Michigan University Dean list (Fall 2020-Spring 2022)
- CMU Student Chapter American Meteorological Society Member of the year (2019-2020)
- CMU Outstanding Executive Board Member of the Year (2022-2023)

RESEARCH INTERESTS
Aspiring atmospheric research scientist seeking to contribute to the advancement of the atmospheric sciences. Seeking opportunities in academic or operational environments to apply model reanalysis, data analytics, and machine learning techniques. Fields of meteorological interest include studying Antarctic katabatic winds, mesoscale cold pool evolution, and sea-breeze circulations.

PRESENTATIONS
- "Identification and Tracking of Airmasses in Idealized Model Output" (poster)
  American Meteorological Society 22nd Student Conference,
  January 2023
- "Analysis of 2000-2020 tropospheric ozone concentrations in Michigan" (poster)
  American Meteorological Society 21st Student Conference,
  Virtual, January 2022

RESEARCH EXPERIENCE

- **RESEARCH EXPERIENCE**
- **Department of Climate and Space Sciences and Engineering**, **University of Michigan,** Ann Arbor, MI PICASSO Research experience for undergraduates, May 2021 – August 2021
  - o "Analysis of 2000-2020 tropospheric ozone concentrations in Michigan"
  - o Research funded through the National Science Foundation (NSF) Research Experience for Undergraduates (REU) program.
  - o Worked under the direction of Dr. Allison Steiner
  - o Repaired ozone detection equipment, wrote Python script for data collection and analysis,
  - o Recorded data and maintained ozone-sensitive gardens.
  - o Conclusions indicate a decreasing trend in tropospheric ozone concentrations and observed phenomena of Spring-ozone maximum near 45° latitude.

- **Department of Earth and Atmospheric Sciences**, **Central Michigan University,** Mt. Pleasant, MI Research Assistant, October 2021 – June 2023
  - o "Identification and Tracking of Airmass Boundaries in Idealized Model Output"
  - o Research funded through National Science Foundation (NSF)
  - o Worked under the direction of Dr. Jason Keeler
  - o Created Python script for data collection and analysis of HRRR initialization output for case study reanalysis of a Mesoscale Airmass with High Theta-E (MAHTE) event.
  - o Developed a Python script utilizing CM1 model output to estimate the velocity of the outflow boundary and perform cluster analysis to automatically detect grid points within the outflow airmass.

- **Department of Earth and Atmospheric Sciences**, **University of Nebraska-Lincoln,** Lincoln, NE Research Assistant, May 2023– June 2023
  - o "Targeted Observation by Radar and UAS of Supercells" (TORUS) field campaign.
  - o Research funded through the National Science Foundation (NSF) and the National Oceanic and Atmospheric Administration (NOAA)
  - o Worked under the direction of Dr. Adam Houston and Dr. Matt Wilson.
  - o Installation and maintenance of instruments on the Combined Mesonet and Tracker (CoMeT-1).
  - o Recorded real-time observations of supercell inflow environment using in-situ instrumentation.
  - o Retrieved, plotted, and uploaded data from unmanned aircraft systems in real time using Python.

- **Department of Geography**, **The Ohio State University,** Columbus, OH Graduate Student Research, July 2023– present
  - o Working under the direction of Dr. David Bromwich.
  - o Conducting validation of ERA-5 Reanalysis representation of Antarctic near-surface winds by comparing model reanalysis results with in-situ observational data, with the aim of identifying potential biases.
  - o Utilizing Python and NCL scripts to analyze the spatial and temporal variability of Antarctic near-surface wind patterns, as depicted in ERA5 Reanalysis output.

WORK EXPERIENCE

- **Central Michigan University Events, Mt. Pleasant, MI**
  Technical Manager, August 2019 – 2022
    - Set up, operate, and maintain audio-visual and electronic equipment utilized in events with attendance as large as 5000.
    - Strong communication skills between multiple departments during production.
    - Worked collaboratively with clients, team members, and university staff to ensure clear lines of communication.
    - Developed inventory practices to increase productivity and prevent loss of resources via Microsoft excel.
    - Calm problem-solving skills used to ensure events and technical team operate smoothly during active productions.
- **Tutor (Mathematics / Meteorology), Mt. Pleasant, MI**
  Central Michigan University tutor, 2020-2021
  Freelance, 2021-present
    - Educating students on meteorological and mathematical concepts including Calculus.
    - Planned compact lessons, practice problems, and quizzes, graded quizzes.
    - Open communication with students and parents to create customized lesson plans for students with dyslexia and Attention Deficit Disorder.

ON-CAMPUS INVOLVEMENT

- **The 19th Workshop on Antarctic Meteorology and Climate**, 2023-2024
    - Reservation of suitable hotel accommodations for attendees.
    - Organization of workshop presentations including management of potential technical and scheduling requirements.
    - Utilization of social media platforms to disseminate information to target groups and increase interest in the conference.
- **CMU Student Chapter of the American Meteorological Society,** 2019-2023
    - Vice President, 2022-2023
    - Co-chair for Fundraising & Activities and Growth development outreach committees, 2020-2022
    - Organize weekly agenda and coordinate committees during meetings.
    - Act as liaison between the organization and campus events
    - Organized study groups between different class years.
- **Mid-Mitten Weather View,** 2021-2022
    - Participated in daily WX challenge.
    - Engaged in practice forecasts.
    - Managed social media posts communicating forecasts to the public.
    - Communicated and directed the public to NWS notices in real-time during severe weather events.

SKILLS

- Python / NCL (intermediate)
- ArcGIS / QGIS (intermediate)
- Proficient in Microsoft Office software
- Adobe Premiere
- Adobe Photoshop