


Megan Thompson-Munson

PhD Candidate at University of Colorado Boulder | (she/her)

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EDUCATION

University of Colorado

Boulder, CO

PhD in Atmospheric and Oceanic Sciences (ATOC) (GPA: 3.96/4.00)

May 2025 (expected)

- Research: Ice-atmospheric interactions and ice-sheet firn processes
- Advisor: Dr. Jan Lenaerts

University of Wyoming

Laramie, WY

MS in Geology (GPA: 4.0/4.0)

May 2020

- Thesis: *Observations and Implications of Three-Dimensional Deformation in the Greenland Ice Sheet*
- Advisor: Dr. Neil Humphrey

University of Massachusetts

Amherst, MA

BS in Geology; BS in Environmental Science (GPA: 3.8/4.0)

May 2017

Commonwealth Honors College Scholar with Greatest Distinction, *cum laude*

- Thesis: *Understanding the Environments in which Early Humans Lived: Insights from Organic Geochemical Analyses of East African Rift Valley Paleolakes*
- Advisor: Dr. Isla Castañeda

FIELD AND LABORATORY EXPERIENCE

Niwot Ridge Snow Science Field Work

Nederland, CO

Field Assistant (2 days)

Jun, Sep 2021

- Set up a field station containing instruments for measuring snow height and snow water equivalent

Lake Agnes Rock Glacier Field Work

State Forest State Park, CO

Field Assistant (1 day)

Oct 2019

- Hiked equipment up to a rock glacier to collect seismic refraction data in the active region of the glacier

Southern Sierra Nevada Critical Zone Observatory Field Work

Sierra Nevada, CA

Field Assistant (14 days, 11 days)

Jul 2018, Jul 2019

- Collected seismic refraction data and surveyed vegetation while mentoring high school students in a summer program

Greenland Ice Sheet Field Work

Kangerlussuaq and Ilulissat, Greenland

Field Team Member (32 days, 31 days)

May–Jun 2018, May–Jun 2019

- Hot-water drilled 100-m boreholes, extracted 30-m firn cores, and traveled by ski and snowmobile

University of Massachusetts Biogeochemistry Laboratory

Amherst, MA

Undergraduate Research Technician

May 2015–May 2017

- Used geochemical analyses to quantify biomarker abundances in East African Rift Valley paleolake sediments

PUBLICATIONS

Theses and Peer-Reviewed Publications

- [4] **Thompson-Munson, M.E.**, Wever, N., Lenaerts, J.T.M., Stevens, C.M., and Medley, B. (In prep.). A comparison of observed and modeled Greenland firn properties.
- [3] **Thompson-Munson, M.E.** (2020). Observations and implications of three-dimensional deformation in the Greenland Ice Sheet. Master's thesis, University of Wyoming.

- [2] Lam, A., Bauer, J.E., Fraass, S., Sheffield, S., Limbeck, M.R., Borden, R.M., **Thompson-Munson, M.E.**, Fraass, A.J., Hills, J.M., Muskelly, C.E., Hartshorn, K.R., and Bryant, R. (2019). Time Scavengers: An Educational Website to Communicate Climate Change and Evolutionary Theory to the Public through Blogs, Web Pages, and Social Media Platforms. The Journal of STEM Outreach, 2(1)
- [1] **Thompson-Munson, M.E.** (2017). Understanding the Environments in which Early Humans Lived: Insights from Organic Geochemical Analyses of East African Rift Valley Paleolakes. Bachelor's thesis, University of Massachusetts.

Datasets and Tools

- [2] **Thompson-Munson, M.E.** SUMMEDup: The SUMup Dataset Explorer. <https://github.com/MeganTM/SUMMEDup>.
- [1] **Thompson-Munson, M.E.**, Lenaerts, J.T.M., Koenig, L., and Montgomery, L. (2021). Surface Mass Balance and Snow Depth on Sea Ice Working Group (SUMup) snow density subdataset, Greenland and Antarctica, 1950-2018. Arctic Data Center. doi:10.18739/A2W08WH6N.

TEACHING AND MENTORSHIP EXPERIENCE

Teaching Positions

Lead Graduate Teacher Program , University of Colorado, ATOC Lead TA	May 2022–present
ATOC REU Python Bootcamp , University of Colorado, Lesson Developer and Instructor	Jun 2021
ATOC 1070: Weather and Atmosphere Lab , University of Colorado, Teaching Assistant	Aug–Dec 2020
GEOG 1010: Physical Geography , University of Wyoming, Teaching Assistant	Aug–Dec 2019, Jan–May 2020
GEOG 3600 Earth and Mineral Resources , University of Wyoming, Teaching Assistant	Aug–Dec 2018

Research Mentorship

Beth Mason , BS Student in ATOC at University of Colorado	Jul 2021–Apr 2022
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SELECTED OUTREACH AND SERVICE

- Visiting Scientist with the ATOC SEEDS program
- Writer for Time Scavengers Science Outreach Blog
- Activity Developer for Girls Inc. Eureka! STEM Career Development
- Judge for the Colorado State Science Fair
- Lead and Member of the ATOC Outreach Committee
- Member of the ATOC Justice, Equity, Diversity, and Inclusion Committee
- Member of the ATOC Forum Committee
- Mentor and Developer in the ATOC Graduate Application Mentorship Program
- Judge for the Wyoming State Science Fair

SELECTED AWARDS

- AGU Flash Freeze Cryosphere Innovation Award for Students
- Best Graduate Student ESSS Poster
- AntClimNow Dataset Development and Stewardship Grant
- EarthCube Learning Communities Fellow
- Fall 2020 Lab Teaching Assistant Award
- 2020 Outstanding Master's Student
- Women in Quaternary Science Award
- AWG Outstanding Student Award
- Geology & Geophysics Meritorious Graduate Research Grant
- Outstanding Geology Senior Award

TECHNICAL SKILLS

- **Programming Languages:** Python (excellent), Matlab (proficient), Java (proficient)
- **Systems:** MacOS, Windows, Unix/Linux, High-performance computing
- **Software:** Microsoft Office, Inkscape, \LaTeX , QGIS, ArcGIS, ENVI, JMP, Git/GitHub, Jupyter, Google Colab, Google Earth Engine
- **Field Skills:** Firn coring, hot-water drilling, ground-penetrating radar, seismic refraction, rock drilling, Trimble GPS surveying, snow sampling