

# Dylan Blaskey

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[Website](#) | [GitHub](#) | [LinkedIn](#)

## EDUCATION

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| 2024 | University of Colorado Boulder<br><b>Ph.D. in Civil Engineering</b><br>Certificate: Hydrologic Sciences |
| 2020 | University of New Orleans<br><b>M.S. in Civil Engineering</b><br>Certificate: Coastal Engineering       |
| 2015 | University of Minnesota Twin Cities<br><b>B.S. in Environmental and Ecological Engineering</b>          |

## RESEARCH INTERESTS

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Hydrologic, hydrodynamic, and water quality modeling, climate change, river discharge and temperature dynamics, river ice, sediment transport, numerical methods, machine learning, forecasting, remote sensing, big data/data mining, co-production, convergent research

## RESEARCH EXPERIENCE

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| 2025 - Present | Assistant Professor, Integrated Systems Hydrology Lab, University of South Carolina   |
| 2024 - 2025    | Physical Scientist (Postdoctoral Researcher), Landscape and Aquatic Systems Modeling Branch, U.S. Environmental Protection Agency |
| 2020 - 2024    | Graduate Researcher, Hydro-Ecology Lab, University of Colorado Boulder  |
| 2018 - 2020    | Graduate Researcher, Hydrologic Modeling Lab, University of New Orleans   |

## PUBLICATIONS

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- (11) **Blaskey, D.**, Racine, I., Harlan, M., Cheng, Y., Newman, A. J., Gooseff, M. N., & Musselman, K. N. (In Review). Using Remote Sensing, Statistical, and Machine Learning Techniques to Assess Alaskan River Ice Phenology and Thickness.
- (10) Newman, Andrew J., Cheng, Yifan., **Blaskey, D.**, et al., (In Press). Long-Term Regional Hydroclimate Modeling for Communities and Decision-makers Across Alaska and Northwestern Canada. Bull. Amer. Meteor. Soc., BAMS-D-24-0131.1, <https://doi.org/10.1175/BAMS-D-24-0131.1>
- (9) Cheng, Y., Herman-Mercer, N., Newman, A. J., Musselman, K. N., Woelfle-Hazard, C., **Blaskey, D.**, et al (2025). Towards Co-Designed Earth System Models: Reflecting End-

User Priorities in Local Applications from a Modeler's Perspective. *AGU Advances*.  
<http://dx.doi.org/10.1029/2025AV001921>

- (8) Thomas, P., **Blaskey, D.**, Cheng, Y., Carey, M., Swanson, H., Newman, A. J., Brooks, C., Herman-Mercer, N., & Musselman, K. N. (2025). Warming Alaskan rivers affect first-year growth in critical northern food fishes. *Sci Rep* 15, 28834. <https://doi.org/10.1038/s41598-025-14711-8>
- (7) Ghimire, S., Wolfe, K., Johnston, J., Kramer, S., **Blaskey, D.**, & Lindquist, A., (2025). A Methodology for Designing Roof Rainwater Quality Sensing-Recording-Grading System using Low-Cost Sensors Paired with Microcontroller Software. *ACS ES&T Water*.  
<https://doi.org/10.1021/acsestwater.5c00046>
- (6) **Blaskey, D.**, Cheng, Y., Newman, A. J., Koch, J. C., Gooseff, M. N., & Musselman, K. N. (2025). Alaskan Hydrology in Transition: Changing Precipitation and Evapotranspiration Patterns Are Projected to Reshape Seasonal Streamflow and Water Temperature by Midcentury (2035–64). *Journal of Hydrometeorology*, 26(5), 613-626.  
<https://doi.org/10.1175/JHM-D-24-0121.1>
- (5) **Blaskey, D.**, Harlan, M., & Musselman, K. N. (2024). Leveraging Sentinel-1 Backscatter for Alaskan River Ice Phenology and Thickness Assessment.  
<https://www.iahr.org/library/infor?pid=30364>
- (4) **Blaskey, D.**, Gooseff, M. N., Cheng, Y., Koch, J., Newman, A. J., & Musselman, K. N. (2024). A High-Resolution, Daily Hindcast (1990–2021) of Alaskan River Discharge and Temperature From Coupled and Optimized Physical Models. *Water Resources Research*.  
<https://dx.doi.org/10.1029/2023WR036217>
- (3) **Blaskey, D.**, Mercer L, van Crimpen F, & Devoie É (2024) Perspectives on funding structures, cross-cultural collaboration and institutional support needed to support the next generation of convergence climate scientists. *PLOS Clim* 3(1): e0000330.  
<https://doi.org/10.1371/journal.pclm.0000330>
- (2) Herman-Mercer, N., Andre, A., **Blaskey, D.**, et al. (2023). The Arctic Rivers Project: Using an equitable co-production framework for integrating meaningful community engagement and science to understand climate impacts. *Community Science*, 2, e2022CSJ000024.  
<https://doi.org/10.1029/2022CSJ000024>
- (1) **Blaskey, D.**, Koch, J. C., Gooseff, M. N., Newman, A. J., Cheng, Y., O'Donnell, J. A., & Musselman, K. N. (2023). Increasing Alaskan river discharge during the cold season is driven by recent warming. *Environmental Research Letters*, 18(2), 024042. [10.1088/1748-9326/acb661](https://doi.org/10.1088/1748-9326/acb661)

## **FELLOWSHIPS & GRANTS**

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2025 - 2027	Clean Water Institute Funding, University of South Carolina (\$26,000)
2023	Horton Research Grant, American Geophysical Union (\$10,000)

2023 Instrumentation Discovery Grant, Consortium of Universities for the Advancement of Hydrologic Science (\$2,000)

## TEACHING EXPERIENCE

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### University of South Carolina

Spring 2026 Surface and Subsurface Hydrology

### University of Colorado Boulder

Spring 2024 Guest Lecturer – Intro to Geography: River Discharge

Spring 2023 Teaching Assistant – Engineering Hydrology (CVEN 4333)

Fall 2022 Guest Lecturer – Professional Issues in Civil Engineering: FE Review  
Fluid Mechanics

Fall 2022 Guest Lecturer – Physical Hydrology: Soil Texture

Spring 2022 Instructor of Record - Theoretical Fluid Mechanics (CVEN 3313)

### Kaplan

2017 – 2019 Instructor - GMAT Prep

2017 – 2019 Instructor - GRE Prep

### Franklin Learning Center

2013 - 2015 Tutor - GED Readiness

## HONORS & AWARDS

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2024 Outstanding Mentor of Undergraduate Research, University of Colorado Boulder

2024 Outstanding Student Presenter Award, Hydrological Sciences Symposium

2022 Outstanding Student Presenter Award, American Geophysical Union

2022 Graduate Student Leader in Justice, Equity, Diversity and Inclusion Award, University of Colorado

## CONFERENCE ACTIVITY

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### \* denotes invited talk

#### Presentations

(18) \*Blaskey, D. (2026, April 19-22). *Ethical Application of AI in Community-Based Hydrologic Modeling For Hazard Mitigation and Resilience*. South Carolina Resilience Conference, Florence, SC, United States.

(17) \*Blaskey, D., Gooseff, M., Newman, A., Cheng, Y., & Musselman, K. (2025, December 15-19). *Evaluating the Causes and Future Frequency of Extreme River Temperatures in Alaskan Rivers*. American Geophysical Union Fall Meeting, New Orleans, LA, United States.

- (16) \*Blaskey, D. (2025, January 30). *Advancing Water Quality and Quantity Research Through Community-Informed Model Frameworks*. University of South Carolina's School of the Earth, Ocean, and Environment Seminar, Columbia, SC, United States.
- (15) \*Blaskey, D., (2024, July 18-19). *Co-producing open and actionable hydrologic models: bridging disciplines, scales, and ways of knowing*. Aquatic Data Science and Open Science conference
- (14) Blaskey, D, Harlan, M., & Musselman, K. (2024, June 9-14). *Assessing Backscatter from Synthetic Aperture Radar for the Retrieval of Regional River Ice Phenology and Thickness Data*. International Association for Hydro-Environment Engineering and Research: International Symposium on Ice, Gdańsk, Poland.
- (13) Blaskey, D. (2024, April 11-12). *Mid-Century Alaskan hydrology in transition: how changing precipitation and evapotranspiration patterns are projected to reshape seasonal streamflow*. Hydrologic Science Symposium, Boulder, CO, United States.
- (12) Blaskey, D., Gooseff, M., Newman, A., Cheng, Y., Koch, J., & Musselman, K. (2023, December 11-15). *Alaskan river temperatures are projected to steadily increase by mid-century despite disparate trends in summer streamflow*. American Geophysical Union Fall Meeting, San Francisco, CA, United States.
- (11) Blaskey, D. (2023, November 6). *Alaskan river temperatures are projected to steadily increase by mid-century despite disparate trends in summer streamflow*, Navigating the New Arctic Student Showcase.
- (10) \*Blaskey, D. (2023, November 6). *Assessing Climate Change Impacts on River Temperature and Discharge in Alaska*, University of Colorado Boulder, Boulder, CO, United States
- (9) Blaskey, D. (2023, April 12-13). *Optimizing a high-resolution river temperature model for Alaskan rivers*. Hydrologic Science Symposium, Boulder, CO, United States.
- (8) Blaskey, D., Musselman, K., Newman, A., Cheng, Y., Koch, J., & Gooseff, M. (2022, December 12-16). *Developing a high resolution model of historic (1990-2020) Alaskan river temperatures*. American Geophysical Union Fall Meeting, Chicago, IL, United States.
- (7) \*Blaskey, D. (2022, November 30). *Climate change impacts on Alaskan river discharge, temperature, and ice*. University of Colorado Boulder, Boulder, CO, United States.
- (6) Blaskey, D., Musselman, K., Newman, A., Cheng, Y., Koch, J., & Gooseff, M. (2021, December 13-17). *Observed and modeled streamflow response to hydroclimatic changes in Alaska*. American Geophysical Union Fall Meeting, New Orleans, LA, United States.

- (5) Blaskey, D., & McCorquodale A. (2021, June 7-11). *Sediment diversion operation and the receiving basin response*. American Society of Civil Engineers Environmental & Water Resources Institute Congress, Milwaukee, WI, United States.
- (4) Blaskey, D. (2021, April 8-9). *How are Alaskan rivers changing?* Hydrologic Science Symposium, Boulder, CO, United States.
- (3) Blaskey, D. (2019, November 19-21). *Modeling sediment diversion distributary channels in broken marshes*. InnovateUNO Conference, New Orleans, LA, United States.
- (2) Blaskey, D. (2019, November 21). *How sediment diversions could affect Native American populations*. Coastal Connections Competition, New Orleans, LA, United States.
- (1) Blaskey, D., & Frauman, E. (2017, November 1-3). *Connecting outdoor programming with environmental issues and natural resource understanding*. Association of Outdoor Recreation and Education National Conference, Roenoke, VA, United States.

#### **Posters**

- (4) Blaskey, D., Gooseff, M., Newman, A., Cheng, Y., Koch, J., & Musselman, K. (2024, December 9-13). *Using Remote Sensing, Statistical, and Machine Learning Techniques to Assess Alaskan River Ice Phenology and Thickness*. American Geophysical Union Fall Meeting, D.C., United States.
- (3) Blaskey, D., Harlan, M., & Musselman, K. (2024, March 5-7). *Assessing the impacts of climate change on Alaskan river discharge, temperature, and ice*. Navigating the New Arctic Annual Meeting, Washington, D.C., United States.
- (2) Blaskey, D., Harlan, M., & Musselman, K. (2024, February 13-16). *Leveraging Sentinel-1 backscatter for Alaskan river ice phenology and thickness assessment*. American Geophysical Union Chapman Conference, Honolulu, HI, United States.
- (1) Blaskey, D. (2022, December 12-16). *How may we assist you today? Creating a program to reduce barriers in the graduate school application process*. American Geophysical Union Fall Meeting, Chicago, IL, United States.

#### **Organized Sessions**

- (8) *Undergraduate Research on Water Quality and Resources*. (2025, December 14-19). American Geophysical Union Annual Meeting, New Orleans, LA, United States.
- (7) *Advancing Water Quality Monitoring, Process Understanding, and Forecasting for Sustaining Terrestrial and Aquatic Ecosystem Health*. (2025, December 14-19). American Geophysical Union Annual Meeting, New Orleans, LA, United States.
- (6) *Navigating Broader Impacts in the Current Political Climate*. (2025, December 14-19). American Geophysical Union Annual Meeting, New Orleans, LA, United States.

- (5) *Strategies Toward Indigenous-Led Research: Be a Changemaker in Arctic Research at Every Stage of Your Career.* (2025, March 20-28). Arctic Science Summit Week, Boulder, CO.
- (4) *What's Next for Hydro-JEDI: Building a Just, Equitable, Diverse, and Inclusive Community in Hydrology.* (2024, December 9-13). American Geophysical Union Fall Meeting, D.C., United States.
- (3) *Undergraduate Research on Water Quality and Resources.* (2024, December 9-13). American Geophysical Union Annual Meeting, D.C., United States.
- (2) *Community Check In: A Discussion Around NNA Successes and Challenges in Co-Production Research* (2024, March 5-7). Navigating the New Arctic Annual Meeting, Washington, D.C., United States.
- (1) *Undergraduate Research on Water Quality and Resources.* (2023, December 11-15). American Geophysical Union Fall Meeting, San Francisco, CA, United States.

## **SERVICE**

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### **University**

2022 – 2024	Representative, INSTAAR Seminar Committee, Institute for Arctic and Alpine Research, University of Colorado
	2021 - 2024 Representative, Justice, Equity, Diversity, and Inclusion Taskforce, Institute for Arctic and Alpine Research, University of Colorado
2021 - 2023	Representative, Graduate Student Social Committee, Institute for Arctic and Alpine Research, University of Colorado
2021 - 2024	Founder and Chair, Graduate Application Assistance Program, Institute of Arctic and Alpine Research, University of Colorado
2020 - 2022	Chair, Hydrologic Science Symposium Planning Committee, University of Colorado Boulder
2021 - 2022	Representative, Graduate Student Advisory Board, College of Engineering and Applied Science, University of Colorado
2016 - 2018	Member and Mindfulness Leader, Mindfulness Collective, Tulane University
2016 - 2018	Representative, Late Night Student Activity Committee, Tulane University

### **Professional**

2025 Chair, Cross-sectional Justice, Equity, and Diversity Committee, American Geophysical Union

- 2023 – 2025 Early Career Co-Lead, Navigating the New Arctic Convergent Working Group: Fostering Indigenous-led Research, National Science Foundation
- 2022 – 2024 Conversations in English Facilitator, Boulder Public Library
- 2021 - 2024 Member, Hydrology Section Justice, Equity, and Diversity Committee, American Geophysical Union
- 2021 - 2022 Representative, Comprehensive Flood and Stormwater Master Plan Committee, City of Boulder
- 2021 - 2022 Representative, CFS Diversity, Equity, and Inclusion subcommittee, City of Boulder
- 2020 – 2022 Website Subcommittee Co-Chair, JEDI Member, Hydrology Section Student Subcommittee, American Geophysical Union
- 2016 - 2017 Ambassador, Complete Streets Program, Bike Easy
- 2015 - 2019 Chair, Environmental Stewardship Committee, Association of Outdoor Recreation and Education

### **Peer Reviewing**

Environmental Research Letters, Environmental Research Communications, Arctic, Antarctic, and Alpine Research, Water Resources Research

### **OUTREACH & SCIENCE COMMUNICATION**

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- April 2024 Article in the CUAHSI newsletter on my use of the Instrumentation Discovery Travel Grant
- Feb 2024 Panelist on graduate school for accepted students in civil engineering.
- Spring 2023 Science mentor for middle school students in Earth Explorers
- July 2022 AGU Hydrology Student Section Subcommittee blog post titled, “Glossary of Academic Terms”
- Sep 2021 Panelist on graduate school for new INSTAAR members
- July 2021 AGU Hydrology Student Section Subcommittee blog post titled, “Science Policy as an academic”
- July 2021 Panelist on graduate school for research experience for community college

students

- July 2021 Panelist on graduate school for research experience for undergraduate and high school students
- Apr 2021 AGU Hydrology Student Section Subcommittee blog post titled, “Hydrology Related Job Boards”
- Apr 2020 AGU Hydrology Student Section Subcommittee blog post titled, “Rebuilding Coastal Marshes Will Impact Native American Communities”
- Oct 2017 Article in the Association of Outdoor Recreation quarterly newsletter titled, “Environmental Impact of Commonly Used Items”
- Oct 2016 Article in the Association of Outdoor Recreation quarterly newsletter titled, “Composting 1-2-3!”
- June 2016 Article in the Association of Outdoor Recreation quarterly newsletter titled, “Steps Towards Environmental Stewardship”
- Feb 2015 News article in Truthout titled, “Proposed Sulfide Mine in Minnesota Threatens State’s Watersheds”
- Mar 2011 News article in the Middleton Times Tribune titled, “Nuts about Nature: Invasive Worms”

### **PROFESSIONAL EXPERIENCE**

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- 2019 - 2020 City of New Orleans  
**Project Manager – Sustainable Infrastructure**
- 2018 - 2019 Pontchartrain Estuary  
**Lakefront Learning Lab and Museum Associate**
- 2016 - 2018 Tulane University  
**Assistant Director of Outdoor Adventures**
- 2013 - 2015 WestRock, Inc.  
**Environmental Engineering Intern**

### **LICENSURE**

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- 2019 Louisiana Professional Engineering Board  
**Engineering Intern**

## **PROFESSIONAL MEMBERSHIPS**

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American Geophysical Union

Association of Polar Early Career Scientists

International Association of Cryospheric Science

International Association of Hydrological Science