

Jacob T. Cohen

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University of Washington
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Education

Ph.D., Oceanography: Advanced Data Science Expected Aug. 2025
The Ocean's Role in Climate Variability and Predictability
University of Washington

M.S., Oceanography, University of Washington 2023

B.A., Physics, Carleton College 2019

Research Experience

Graduate Research Assistant, University of Washington 2019–present
Advisor: LuAnne Thompson

REU Research Assistant, The Pennsylvania State University 2018
Advisors: Sukyoung Lee, Raymond Najjar, Qian Li

Undergraduate Research Assistant, Universidad Nacional de Costa Rica 2017
Advisors: Sergio Molina, Vanessa Valerio Hernandez, Fabiola Rodriguez, Javier Espeleta

Publications

Cohen, J. T., Thompson, L., Maroon, E., Deppenmeier, A.-L., Cai, C. (2025). Object-based evaluation of seasonal-to-multiyear marine heatwave predictions, *GRL*, accepted

In review

Kohlman, K., Mogen, S., Cohen, J. T., Araujo, J., Bonino, G., Beaudin, E., Gagliardi, A., Lovenduski, N. S., Surface and subsurface biogeochemical impacts of the 2019 Northeast Pacific marine heatwave, *GRL*, in review

Richter, J. H. & Coauthors (incl. Cohen, J. T.) Earth system predictability across time scales for a resilient society: A research community perspective, *Bull. Am. Meteorol. Soc.*, submitted

In preparation

Cohen, J. T., Thompson, L., Seasonal roles of the ocean and the atmosphere in driving the surface heat flux feedback, *JGR: Oceans*, in prep.

Cai, C., Thompson, L., Deppenmeier A.-L., Cohen, J. T., Maroon, E., Staneva, V., Whitt, D., Drivers of marine heatwaves in the North Pacific Ocean, *Journal of Climate*, in prep.

Presentations

CAMAS Workshop and Early Career School April 2025
Sources of predictability in seasonal forecasts of September Arctic sea ice, oral

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| AGU Fall Meeting <i>Object-based evaluation of marine heatwave predictions, poster</i> | December 2024 |
| Graduate Climate Conference <i>Sources of predictability in skillful Arctic sea ice forecasts, oral</i> | November 2024 |
| NOAA's Subseasonal and Seasonal Applications Workshop <i>Object-based evaluation of marine heatwave forecasts, oral</i> | September 2024 |
| Liège Colloquium on Ocean Dynamics <i>Object-based evaluation of marine heatwave predictions, oral</i> | May 2024 |
| Earth System Predictability Across Timescales Workshop <i>Object-based evaluation of marine heatwave predictions, poster</i> | April 2024 |
| CESM Earth System Prediction Working Group Meeting <i>Object-based evaluation of marine heatwave predictions in SMYLE, oral</i> | March 2024 |
| Ocean Sciences Meeting <i>Predicting the spatiotemporal evolution of marine heatwaves, oral</i> | February 2024 |
| Graduate Climate Conference <i>Predicting the spatiotemporal evolution of marine heatwaves, oral</i> | November 2023 |
| ICTP-CLIVAR Summer School on Marine Heatwaves <i>Predicting the spatiotemporal evolution of marine heatwaves, poster</i> | July 2023 |
| UW Data Science Seminar <i>Characterizing the spatiotemporal evolution of marine heatwaves, oral</i> | April 2023 |
| US CLIVAR Mesoscale and Frontal-Scale Air-Sea Interactions Workshop <i>The seasonal cycle of the ocean's role in driving air-sea interaction, poster</i> | March 2023 |
| AGU Fall Meeting <i>Seasonal variation in the relative roles of oceanic and atmospheric processes in driving air-sea interaction, oral</i> | December 2022 |
| Graduate Climate Conference <i>Quantifying the relative roles of atmospheric and oceanic processes in driving air-sea interaction in the Gulf Stream region, poster</i> | October 2022 |
| US CLIVAR Whither the Gulf Stream Workshop <i>Quantifying the relative roles of atmospheric and oceanic processes in driving air-sea interaction in the Gulf Stream region, poster</i> | June 2022 |
| Ocean Sciences Meeting <i>Seasonal variation in the effective depth of air-sea interaction, oral</i> | March 2022 |
| Oceanography Graduate Student Symposium <i>The effective depth of air-sea interaction, oral</i> | November 2021 |
| Graduate Climate Conference <i>The effective depth of air-sea interaction on monthly and seasonal timescales, poster</i> | October 2021 |

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| Northwest Climate Conference | April 2021 |
| <i>Actionable Community-Oriented Research eNgagement (ACORN) with the UW Program on Climate Change, lightning talk</i> | |
| AGU Fall Meeting | December 2020 |
| <i>Timescales of atmosphere-ocean interaction in the Southern Ocean, oral</i> | |
| Graduate Climate Conference | October 2020 |
| <i>Timescales of atmosphere-ocean interaction in the Southern Ocean, poster</i> | |
| AGU Fall Meeting | December 2018 |
| <i>Is jet-scale overturning circulation present in the North Atlantic Ocean?, poster</i> | |
| Carleton College Student Research Symposium & Celebration | October 2018 |
| <i>Is jet-scale overturning circulation present in the North Atlantic Ocean?, poster</i> | |

Software

Ocetrac (<https://github.com/ocetrac/ocetrac>; <https://doi.org/10.5281/zenodo.14736769>)
 heatwave3 (<https://robwschlegel.github.io/heatwave3/index.html>)

Fellowships and Awards

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| CICOES Graduate Student Fellowship | 2025 |
| Graubard Fellowship in the Program on Climate Change | 2023 |
| NSF GRFP Honorable Mention | 2021 |
| University of Washington Provost's Fellowship | 2019–2020 |
| Kolenkow-Reitz Undergraduate Research Fellowship | 2018 |

Community Engagement and Service

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| Organizer, Marine Heatwave Early Career Ocean Professionals (ECOP) | 2025 |
| Liaison, Actionable Community-Oriented Research eNgagement (ACORN) and the Clean Energy Transition Institute | 2021–2025 |
| Reviewer, Journal of Climate, American Meteorological Society | 2023–2024 |
| Member, Program on Climate Change Graduate Steering Committee | 2020–2022 |
| Lead, Actionable Community-Oriented Research eNgagement (ACORN) | 2020–2022 |
| Executive Committee Member, Graduate Climate Conference | 2020, 2022 |
| Chair, Graduate Climate Conference | 2021 |
| Convener, Innovative Initiatives in Conducting Community-Based Science and Training the Next Generation of Practitioners (AGU Fall Meeting) | 2021 |
| Member, Summer Committee for Social and Environmental Justice | 2020 |
| Volunteer, Climate Change // Curiosity Expo | 2020 |

Teaching Experience

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| Guest Speaker, Data Science in Oceanography Summer Research Program <i>Object-Based Evaluation of Marine Heatwave Predictions</i> | 2024 |
| Guest Lecturer, ATM S 220: Exploring the Atmospheric Sciences <i>The Ocean and the Climate: Air-sea interaction, climate variability, and marine heatwaves</i> | 2024 |
| Teaching Assistant, Ocean 285–Physics Across Oceanography: Fluid Mechanics and Waves, University of Washington | 2021, 2024 |
| Guest Speaker, Data Science in Oceanography Summer Research Program <i>Detecting Tracking, and Predicting Marine Heatwaves</i> | 2023 |

Workshops

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| Consortium for the Advancement of Marine Arctic Science (CAMAS) Workshop and Early Career School | 2025 |
| Physical Oceanography Dissertation Symposium XIII | 2024 |
| NOAA’s Subseasonal and Seasonal Applications Workshop | 2024 |
| Earth System Predictability Across Timescales Workshop (NSF NCAR) | 2024 |
| US CLIVAR Summit | 2023 |
| ICTP-CLIVAR Summer School on Marine Heatwaves | 2023 |
| US CLIVAR Mesoscale and Frontal-Scale Air-Sea Interactions Workshop | 2023 |
| Grid SST Hackathon (University of Washington) | 2022 |
| NASA Summer School on Satellite Observations and Climate Models | 2022 |
| US CLIVAR Whither the Gulf Stream Workshop | 2022 |
| CESM Tutorial (NSF NCAR) | 2022 |