Julie Pullen, M.S., Ph.D.

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Earth system scientist leading climate risk, resilience and solutions bridging academia, non-profit, government and private sector

- Climate scientist (with computational applied math background in nonlinear dynamics) using earth system models & AI/ML to quantify and advise on extreme weather and climate change impacts to national security, supply chains, infrastructure, energy and financial services.
- Deep expertise spanning weather, water and climate modeling and observations, centering on coastal urban and island prediction for flooding, heatwaves and other perils.
- Skilled at evaluating and communicating climate risk, in concert with strategies for climate resilience and investments in climate solutions for investors, start-ups and non-profits.
- Led Department of Homeland Security applied research center partnering with defense, emergency and disaster response community at the local, state, and national levels (including national labs and military).

Professional Experience

Partner and Chief Scientist **2022-current**
Propeller Ventures (an ocean climate solutions VC firm) **New York, NY**
- Lead for S&T and member of investment committee for new pre-seed/seed fund
- Manager and initiator of projects and collaborations at ocean science institutions (WHOI, UCSD/Scripps, Oregon State U., U. of Rhode Island, U. of Hawai'i)

Director of Product / Climate Strategist **2018-2022**
Jupiter Intelligence (a climate tech start-up) **New York, NY**
- Owner of Climate Risk Platform encompassing flood, heat, wind, fire products from inception
- Lead for large utilities, real estate and financial services; acquired first utility customer (ConEd)
- Launched new initiative to provide under-resourced communities globally with climate risk analytics
- Technical oversight and manager of cloud-native workflows for high-resolution coupled earth system modeling and data

Adjunct Research Scientist **2009-current**
Earth Institute, Columbia University **New York, NY**
- Leader and organizer of integrated field and modeling studies to improve earth system model fidelity
- Over 50 publications in peer-reviewed meteorology, oceanography, earth science and hydrology journals

Fulbright Visiting Professor **2018**
University of the Philippines **Manila, Philippines**
- Coordinated international tropical ocean, atmosphere and hydrology field and modeling campaign with Office of Naval Research, NOAA and NASA, U.K., Australia, Taiwan and southeast Asian countries
- Developed and taught graduate Tropical Meteorology course at Institute of Environmental Science and Meteorology, and advised graduate students

Associate Professor **2015-2018**
Engineering, Stevens Institute of Technology **Hoboken, NJ**
- Developed and taught new courses in Urban Meteorology, Nuclear Security; taught Fluid Dynamics, Oceanography and Dynamic Meteorology
- Received sustained funding from Office of Naval Research, Department of Energy, Defense Threat Reduction Agency, and Carnegie Foundation

-Graduated both masters and Ph.D. students as academic advisor

Scientist by Joint Appointment **2017-2018**
Brookhaven National Laboratory **Upton, NY**
- Advised Department of Environmental and Climate Sciences on innovation and R&D
- Collaborated on research of climate impacts to infrastructure and the power and energy sectors

Executive Director **2011-2015**
National Center of Excellence for Maritime Security **Hoboken, NJ**
- Led $20M Department of Homeland Security portfolio consisting of project management for partner institutions U. Alaska, U. of Hawaii, Rutgers, U. of Puerto Rico, and Stevens Institute of Technology
- Established collaborations with emergency response officials and technology transitions to Coast Guard, Customs and Border Protection and National Labs

Education

Stanford University, Science Fellow Palo Alto, CA
Center for International Security and Cooperation

Naval Research Laboratory, Postdoc Monterey, CA
Marine Meteorology

Oregon State University, Ph.D. Corvallis, OR
Physical Oceanography

University of Arizona, M.S. Tucson, AZ
Applied Mathematics

Macalester College, B.A. St. Paul, MN
Physics and Math, French minor

Leadership and Service

- 2024-current: Board of Ocean Visions (a non-profit advancing solutions for ocean restoration and repair)
- 2023-current: Science Advisory Board of Carbon to Sea (a philanthropy accelerating research in ocean alkalinity enhancement)
- 2022-current: Climate Security Roundtable (National Academy of Sciences for U.S. Government)
- 2021-current: Advisory Board, Resilience Rising
- 2013-current: Board and Treasurer, Waterfront Alliance (a nonprofit consortium of over 1000 businesses and organizations in NY/NJ crafting and leading climate adaptation and climate policy solutions for cities)
- 2019-current: Advisory Committee, Sustainability and Climate Risk, Global Association of Risk Professionals (the leading professional organization of risk managers for finance and energy)

Past:

- 2023: Opening Keynote speaker, Ocean Visions Summit
- 2023: Overall Planning Committee for American Meteorological Society climate-themed annual meeting
- 2023: Member of National Academy of Sciences peer review panel for review of 5th National Climate Assessment
- 2020-2023: Executive Committee & Governing Council (by election), American Meteorological Society (the largest global scientific society of weather, water and climate scientists)

- 2019-2022: Lead expert in physical climate risk, Open Source-Climate (a Linux Foundation open source platform for financial risk assessment from climate change)
- 2020: Committee, National Academy of Sciences panel “Sustaining Ocean Observations”
- 2020-2022: Eminent Judge, Call for Code (an open source global technology challenge led by IBM and the UN to develop and deploy pandemic and climate solutions)
- 2017-2018: Committee, National Academy of Sciences panel peer-reviewing “4th National Climate Assessment: Impacts”
- 2017-2018: Invited Lecturer, International Earth System Science Summer School (organized by University of Lisbon in the Azores and Madeira)
- 2017-2018: Science Advisory Committee, Brookhaven National Laboratory, Environmental and Climate Sciences Department
- 2017: Lead Organizer, Coastal Hydrology, Land Surface and Air/Sea Modeling (inaugural community workshop held at the Oceanic Observatory in Madeira)
- 2015-2018: Leadership Council (by election), The Oceanography Society (a scientific society representing all oceanographic disciplines)
- 2014-2016: Committee, National Academy of Sciences panel “Next Generation Earth System Prediction”
- 2013-2015: New York City Panel on Climate Change
- 2011-2012: Regional Catastrophic Planning Team (NY/NJ/CT/PA), Regional Improvised Nuclear Device Plan