

EMILY WILLIAMS

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EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

PhD, Computational Science and Engineering, expected June 2026.

Dissertation: "Stochastic integration for forward analysis of linearized chaotic dynamical systems."

Advisor: Prof. David Darmofal

Massachusetts Institute of Technology, Cambridge, MA

MS, Aeronautics and Astronautics, June 2023.

Thesis: "Assessment of wall-modeled large-eddy simulation for high-speed flows and novel modeling strategies."

Advisor: Prof. Adrián Lozano-Durán

University of Illinois Urbana-Champaign, Champaign, IL

BS, Highest Honors, Aerospace Engineering, June 2021.

Minor: Atmospheric Sciences

Advisors: Prof. Andrés Goza and Prof. Marco Panesi

RESEARCH EXPERIENCE

Pacific Northwest National Laboratory, Seattle, WA

Visiting Researcher, May 2024 to August 2024

Massachusetts Institute of Technology, Cambridge, MA

Department of Energy Computational Science Graduate Fellow, September 2022 to Present

Massachusetts Institute of Technology, Cambridge, MA

Graduate Research Assistant, September 2021 to September 2022

University of Illinois Urbana-Champaign, Champaign, IL

Undergraduate Research Assistant, January 2020 to June 2021

TEACHING EXPERIENCE

Head Engineering Learning Assistant, University of Illinois

Engineering Orientation (Gretchen Forman), January 2019 to May 2021

Course Developer & Instructor, University of Illinois

Introduction to CubeSat Design & Development (Laura Gerhold), January 2020 to May 2020

Teaching Assistant, University of Illinois

Grainger First-Year Experience Leadership Scholars (Angela Wolters), January 2020 to May 2021

Course Assistant, University of Illinois

Introduction to Programming for Engineers (Neal Davis), August 2018 to May 2021

Lead Tutor, University of Illinois

Center for Academic Resources in Engineering (Dana Tempel), August 2019 to May 2021

COMMUNITY LEADERSHIP

President, Graduate Women in Aerospace Engineering
MIT Department of Aeronautics and Astronautics, January 2022 to December 2022

Social Committee Chair, Aerospace Computational Design Laboratory
MIT Department of Aeronautics and Astronautics, August 2021 to May 2022

President, Women in Aerospace
University of Illinois Department of Aerospace Engineering, August 2019 to May 2021

HONORS & AWARDS

Graduate Student Leadership Award, MIT	2023
Vickie Kerrebrock Award, MIT	2022
DOE Computational Science Graduate Fellowship (CSGF)	2022
NSF Graduate Research Fellowship Program (GRFP) - Declined	2022
DOD NDSEG Fellowship - Declined	2022
AIAA Aviation Week Network 20 Twenties, UIUC	2021
Grainger Engineering Knight of St. Patrick, UIUC	2021
University of Illinois Tutor of the Year	2021
Scott R. White Aerospace Engineering Visionary Scholarship, UIUC	2020