

# EMILY WILLIAMS

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## EDUCATION

**Massachusetts Institute of Technology**, Cambridge, MA

**PhD**, Computational Science and Engineering, expected June 2026.

Dissertation: Machine-learning-based numerical methods for reduced-order modeling of chaotic 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**, Aerospace Engineering, *with Highest Honors*, 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 Present

**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