

Emily Williams

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EDUCATION

Massachusetts Institute of Technology

Sep 2021 – June 2026

Ph.D. in Aeronautics and Astronautics

University of Illinois at Urbana-Champaign

Aug 2017 – May 2021

B.S. with Highest Honors in Aerospace Engineering

RESEARCH EXPERIENCE

Computational Turbulence Group

Fall 2021 – Present

Advisor: Adrián Lozano-Durán, PhD

Cambridge, MA

Numerics and Unsteady Flows (NUF) Group

Summer 2020 – Spring 2021

Advisor: Andrés Goza, PhD

Champaign, IL

Center for Hypersonics & Entry Systems Studies (CHESS)

Spring 2020 – Spring 2021

Advisor: Marco Panesi, PhD

Champaign, IL

TEACHING EXPERIENCE

ENG 100: Engineering Orientation (UIUC)

Spring 2019 – Spring 2021

AE 199 SAT: Introduction to CubeSat Design & Development (UIUC)

Spring 2020

ENG 177: Grainger First-Year Experience (GFX) Leadership Scholars (UIUC)

Spring 2020 – Spring 2021

CS 101: Introduction to Programming for Engineers (UIUC)

Fall 2018 – Spring 2021

PROFESSIONAL EXPERIENCE

Boeing Research & Technology, Graduate Researcher (St. Louis, MO)

Summer 2022

Boeing, Space Electronics Product Design Engineering Intern (El Segundo, CA)

Summer 2020, Summer 2021

GE Aviation, Product Operations Engineering Intern (Cincinnati, OH)

Summer 2018

COMMUNITY INVOLVEMENT

Graduate Women in Aerospace Engineering, Advocacy Committee Chair (MIT)

Fall 2021 – Present

Aerospace Computational Design Lab, Social Committee Chair (MIT)

Fall 2021 – Present

Center for Academic Resources in Engineering, Lead Tutor (UIUC)

Fall 2019 – Spring 2021

Women in Aerospace, President (UIUC)

Fall 2017 – Spring 2021

HONORS & AWARDS

AIAA Aviation Week Network 20 Twenties 2021

James Scholar Honors Program 2017 - 2021

University of Illinois Dean's List 2017 - 2021

Grainger Engineering Knight of St. Patrick 2021

University of Illinois Tutor of the Year 2021

Senior 100 Honorary 2021

NSF GRFP Honorable Mention 2021

Scott R. White AE Visionary Scholarship 2020

Dale Margerum Memorial Award 2020

Philip Lazzara Memorial Scholarship 2020

Boeing Women in Engineering Scholarship 2018

Illinois Space Grant (ISGC) Scholarship 2018

GE Women's Network Scholarship 2018

AE Dept Academic Scholarship 2018

Hayward Tau Beta Pi Scholarship 2018

Grainger Scholarship for Continuing Students 2018

H.S. Stillwell Memorial Scholarship 2018

Illinois Engineering Achievement Scholarship 2017

Turley Scholarship 2017

MSCI Central States Chapter Scholarship 2017

PUBLICATIONS & PRESENTATIONS

Williams, E., Lozano-Durán, A., “Error Scaling of Wall-Modeled Large-Eddy Simulation of Compressible Wall Turbulence,” American Physical Society Division of Fluid Dynamics, November 2021.

Williams, E., Ling, Y., Arranz, G., and Lozano-Durán, A., “Numerical Schlieren of the X-59 QueSST,” American Physical Society Division of Fluid Dynamics Gallery of Fluid Motion, November 2021.

Ling, Y., **Williams, E.**, Arranz, G., and Lozano-Durán, A., “Can the X-Wing Survive the Reentry to Dagobah?” American Physical Society Division of Fluid Dynamics Gallery of Fluid Motion, November 2021.

Williams, E., Sharma, M.P., Venturi, S., and Panesi, M., “Relation of Dissociation Rates to the Centrifugal Barrier,” University of Illinois Undergraduate Research Symposium, April 2020.