


# EMILY WILLIAMS

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## EDUCATION

### University of Illinois at Urbana-Champaign

*Bachelor of Science in Aerospace Engineering · Minor in Atmospheric Sciences*

Dean's List, James Scholar, Tau Beta Pi, Alpha Omega Epsilon, Order of Omega

May 2021

GPA: 3.94/4.00

## WORK EXPERIENCE

### The Boeing Company, *Electronics Product Design Engineering Intern*

Los Angeles, CA

Summer 2020

- Working at the Boeing Satellite Development Center for Boeing Defense, Space & Security (BDS)
- Hired through EAHI (Engineering Accelerated Hiring Initiative) Program

### CU Aerospace, *Undergraduate Research Assistant*

Champaign, IL

Summer 2019

- Led procedural development processes for thermal vacuum and vibrational testing for monofilament vaporization propulsion thruster package
- Served as liaison between on-site and campus lab teams working on joint payload project

### General Electric Aviation, *GENx Product Operations Intern*

Cincinnati, OH

Summer 2018

- Reallocated 300+ GENx 1B booster fan blades in spares inventory to usable parts kitted for application on the assembly line, expediting the development of 20 affected engines
- Implemented program for tracking forecasted commits across multiple product lines to proactively address maintenance repair and overhaul (MRO) issues with executive team

### KIE Web Development, *Frontend Developer*

Champaign, IL

Fall 2018 - Present

- Leading joint consulting venture and engineering application to improve online presence of local businesses and personal branding of individuals

## RESEARCH EXPERIENCE

### Laboratory for Advanced Space Systems at Illinois

Fall 2017 - Present

- Developing software to display pass trends and visual data onscreen through mission control accessible webpage using HTML/CSS for Steven R. Nagel Mission Operations Center
- Managing outreach efforts and media presence through external research site as well as individual mission pages in compliance with university and department branding standards

### Nanomechanics and Materials Research Laboratory

Spring 2020 - Present

- Focusing on nanoscale mechanical behavior of materials and the associated mechanisms of deformation

### Non-Equilibrium Kinetics and Radiative Gas Dynamics Laboratory

Spring 2020 - Present

- Focusing on the modeling of non-equilibrium chemically reactive flows by developing predictive methods for multi-scale, multiphysics phenomena

## LEADERSHIP AND ACTIVITIES

### Women In Aerospace, *President (2019 - 2020)*

Fall 2017 - Present

- Created Departmental Development Committee of 6 representatives to improve female retention rate by coordinating outreach events with prominent women in engineering and industry leaders
- Collaborated with Aerospace Undergraduate Advisory Board of 8 to execute social mixers and other department-wide fundraising events while overseeing 5 standing committees
- Planned and executed week-long professional development trips and conferences for executive board members and overall membership of 80+

### Satellite Development Organization, *President (2019 - 2020)*

Fall 2017 - Present

- Designed and developed new website and other media to rebrand and market towards recruiting new talent to work in the Laboratory for Advanced Space Systems at Illinois
- Creating and teaching new engineering course to introduce 25+ underclassmen to satellite development research opportunities on campus
- Introduced various interest groups with mentors to help facilitate learning and development of technical skills for membership of 300+

## SKILLS

**Programming:** Python, JavaScript, HTML/CSS, SQL, MATLAB, Bootstrap, LaTeX, Visual Studio, Full-Stack Development

**Industry:** CFD, PTC Creo, Siemens NX, MS Project/Visio, Soldering, Thermal Vacuum, 3D Printing, Technical Writing