Emily Williams

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Education

University of Illinois at Urbana-Champaign — **May 2021**

B.S. in Aerospace Engineering · Minor in Atmospheric Sciences — GPA: **3.93**/4.00

Dean's List, James Scholar, Tau Beta Pi

Work Experience

General Electric Aviation

GEnx Product Operations Co-op/Intern — Cincinnati, OH · Summer 2018

- Executed technical solutions with cross-functional global teams in time-sensitive cases involving changes in design with FARO arm elimination and forward fan shaft
- 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

CS 101: Introduction to Programming for Engineers and Scientists

Course Assistant — Fall 2018 - Present

- Nominated to supervise and guide freshmen computer science students through laboratory sessions of introductory-level technical course
- Working directly with course administration team while holding office hours and discussion sections for students, facilitating learning of Python, MATLAB, and symbolic algebra

KIE Web Development

Founder — Spring 2019 - Present

- Coding and developing personal and professional websites for clients and their businesses
- Using HTML/CSS and Java/JavaScript to create webpages hosted on GitHub
- Partaking in joint consulting venture and engineering application to improve online presence of local businesses

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Curricular Involvement

Women In Aerospace — **Fall 2017 - Present**

Secretary — Spring 2018 - Present

- Created Aerospace Departmental Development Committee to improve female retention rate by coordinating outreach events with prominent women in engineering and industry leaders
- Collaborated with Aerospace Undergraduate Advisory Board to execute social mixers and other department-wide fundraising events

Laboratory for Advanced Space Systems at Illinois — **Fall 2017 - Present**

Program Manager — Spring 2019 - Present

- Overseeing and monitoring all satellite mission progress across entire laboratory program through collaboration with mission coordinators and subteam leads
- Implementing robust scheduling system adaptable for tracking mission deliverables and responsibilities for five active satellite programs
- Developing software to display pass trends and visual data onscreen through mission control accessible webpages using HTML/CSS

Systems Engineer — Fall 2018 - Spring 2019

- Drafting proposals for future missions for satellites for low-Earth orbit research
- Coordinating payload trade studies and designing structural components for future satellites

Structural Test Engineer — Fall 2017 - Fall 2018

- Developed cumulative Bill of Materials of structural components of CubeSail by remodeling and dimensioning in Creo for NASA's CubeSat Launch Initiative
- Restructured current IlliniSat-2 satellite bus assembly model to ensure tolerances were met
- Oversaw use and experiments involving 3D printers, thermal vacuums, and soldering equipment