

# RIKHI (RUKMINI) ROY

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## OBJECTIVE

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Looking to make a positive change on aerospace systems safety through interdisciplinary engineering, stakeholder engagements, ethical design, data science and a commitment to diversity, equity, inclusion and belonging advocacy.

## EDUCATION

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### Georgia Institute of Technology - Atlanta, Georgia

#### *Master of Science in Aerospace Engineering - Aerospace Systems Design Lab*

- Incoming Systems Safety and Certification Intern, Kitty Hawk, Summer 2021

**Completion: May' 22**  
**GPA, Major GPA: 4.0/4.0**

#### *Bachelor of Science in Aerospace Engineering*

- Dean's List: Fall 2016, Fall 2017, Fall 2018, Fall 2019, Spring 2020

**August' 16 – May' 20**

- **Brooke Owens Fellowship (2019):** Received an internship and executive mentorship from astronauts, and executives
- **AIAA Diversity Scholarship (2019):** International Astronautical Congress panelist alongside NASA JPL Deputy Director

## SKILLS

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**Programming:** Python, MATLAB, Java

**Software:** JMP, SysML, Tableau, SolidWorks, Simulink, STK, OpenVSP, XFOIL, MS Office, Google Docs

**Languages:** Fluent: English, Bangla, Hindi; Intermediate: French; Beginner: Mandarin

**Passions:** Indian Classical Dancing, Wellness Blogging for Engineers, International Student Advocacy

## WORK EXPERIENCE, RESEARCH & PROJECTS

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### LEAD SYSTEMS SAFETY ENGINEER

#### *Vehicle Grand Challenge Project, Aerospace Systems Design Lab, Georgia Tech*

**Atlanta, Georgia**  
**August' 20 – Present**

- Generate and review systems safety analyses to verify regulatory requirements for a novel general aviation aircraft (X-57)
- Coordinate with SMEs at NASA, Terrafugia, and Kitty Hawk to create a model-based framework for systems safety

### GRADUATE RESEARCH ASSISTANT

#### *Federal Aviation Administration - Aerospace Systems Design Lab, Georgia Tech*

**Atlanta, Georgia**  
**January' 20 – Present**

- Prepare data using Python for Machine Learning algorithm to evaluate braking performance on contaminated runways
- Extract meta-data properties from data to create models to provide insight into operational aspects of braking performance

### GRADUATE RESEARCH ASSISTANT

#### *Federal Aviation Administration - Aerospace Systems Design Lab, Georgia Tech*

**Atlanta, Georgia**  
**August' 20 – Present**

- Develop Python algorithm to apply to aircraft geospatial data to improve arrival profile modeling across various parameters
- Identify and show inconsistencies in compliance using Tableau and create a detailed implementation plan to improve FAA tool

### UNDERGRADUATE RESEARCH TEAM LEAD

#### *Accident Causation and System Safety Course, Georgia Tech*

**Atlanta, Georgia**  
**August' 19 – December' 19**

- Researched recurring failure modes in aircraft surveillance technologies through a case-series of accidents
- Suggested functional requirements and analyzed existing technologies and potential solutions in relation to failure modes

### SPACE TECHNOLOGY DATA ANALYST

#### *Bryce Space and Technology*

**Washington, D.C.**  
**May' 19 – August' 19**

- Validated 300+ space startup database and developed a new characterization scheme after identifying unexpected weaknesses
- Proposed pitch deck to CEO to create product enhancements to the SmallSat report and executed the approved pilot program

### NON-DESTRUCTIVE TESTING INTERN

#### *Setsco Services Pte.Ltd*

**Singapore**  
**June' 15 – July' 15**

- Cut processing by half and prevented overtime by implementing new positioning strategy to inspect a turbofan engine
- Utilized computer-radiography to process film and detect foreign object damage under a tight timeline

## LEADERSHIP

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### NATIONAL BOARD MEMBER – DIVERSITY & INCLUSION CHAIR

#### *Women of Aeronautics and Astronautics, AIAA*

**May' 20 – Present**

- Mobilize former NASA Administrator, JPL Dep. Director, Blue Origin President, and Virgin Orbit VP for 2 D&I panels
- Lead meetings with members across the country on topics pertaining to microaggressions, anti-racism, and allyship

### FOUNDER, MODERATOR & MENTOR

#### *SheLAEds – 'AE: Aerospace'*

**January' 19 – Present**

- Founded Singapore's first 'Women Leaders in Aerospace Conference' with 87 student attendees across continents
- Prospected and mobilized stakeholders to organize venue, sponsorships, speakers, food, volunteers, and marketing materials