

Priyanshu Kumar

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EDUCATION

Embry-Riddle Aeronautical University (ERAU)
Bachelor of Science, Aerospace Engineering
Area of Concentration: Astronautics
Minors: Electrical Engineering and Computer Science

Prescott, AZ
May 2023
GPA: 3.97

PROJECT EXPERIENCE

Spacecraft Preliminary Design- Dynamic Release and Recovery of Payload

Design a prototype guided data vault recovery system for the NASA FLOATING DRAGON competition. Create a design package with specifications, calculations, CAD drawings, trade studies, subsystem budgets, and design reports.

Rocket Development Lab Test Cell 4 Design Team

Designed a new rocket test cell for ERAU. Conducted research and contact alumni, faculty, students, and manufacturers. Applied knowledge learned in Solid Mechanics, Aerospace Structures, and Dynamics. Used software, such as MATLAB, CATIA, and ANSYS.

Space Systems Asteroid Mission Design Project: *Team Lead*

Used fundamentals of space systems engineering to create a mission design plan for a spacecraft to travel to the asteroid 3361 Orpheus and survey for its potential as an intermediate resupply staging location via in-situ resource utilization.

Personal Website: *Personal Project*

Designed a personal website by self-teaching. Learned HTML, CSS, and JavaScript to design the website and hosted it via Amazon Web Services.

Rocket Development Lab Ablatives Project

Researched materials that best absorb heat from a rocket engine to prevent damage in the test article. Manufactured silica wrap test samples with various additives. Conducted tests and analyzed results.

RESEARCH EXPERIENCE

Modeling Structural Dynamics of Complex Structures Via LSTM Networks

- Utilize deep machine learning to create vibration models in beams and airplane wings
- Create CAD models of wings to use for analysis in ANSYS
- Draft drawings to use for machining airplane wing models
- Improve LSTM model by comparing model performance in MATLAB and Python, predictions in ANSYS, and experimental testing results
- Write papers for publication and present them at conferences

WORK EXPERIENCE

Embry-Riddle Aeronautical University **Assistant Area Coordinator (Housing and Residential Life Department)**

- Perform administrative tasks within the HRL department
- Help with training and staff meetings
- Enforce university and housing policies
- Facilitate the development of a welcoming and inclusive community
- Serve on the Professional on Duty rotation to assist Resident Assistants, the HRL department, and the university with any emergency situations that arise

Prescott, AZ
August 2022-
Present

SKILLS

Software: ANSYS, C, C++, CATIA, HTML/CSS/JS, LaTeX, MATLAB, Python
Activities: Rocket Development Lab Club, Hiking, Website Designing, Crocheting, Volleyball
Certifications: CATIA V5 Specialist- Mechanical Designer

LEADERSHIP

ERAU Phi Kappa Phi, 2021 - Present
ERAU Sigma Gamma Tau, 2021 – Present

ACHIEVEMENTS

Resident Assistant of the Year: 2021-2022
ERAU: Annual Presidential Scholarship, August 2019 - Present
ERAU: Dean's List- Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019