Erick **White**

Profile

Hardworking student seeking an opportunity to learn and grow in a team environment with exceptional interpersonal skills and ability to communicate effectively; hoping to explore the aerospace field (astrodynamics and space physics in particular) through both academia and industry.

Contact details

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Education

University of Colorado Boulder

- Aerospace Engineering BS '26
  - GPA: 4.0
- Applied Mathematics BS '26
  - GPA: 4.0

Computer Science Minor

Key Skills

Programming

- MATLAB
- Python
- Java

LaTeX

Languages

- English (native)
- Italian (native)
- Spanish (semi-fluent)

References

References available upon request.

Experience

Undergraduate Research Assistant – *Celestial and Spaceflight Mechanics Laboratory* **June 2025 – Present**

◇ Researched and developed software to integrate N-body mechanics with granular dynamics

◇ Simulated and analyzed systems of asteroids to better understand relevant physical properties

Undergraduate Research Assistant – *Lightning, Atmosphere, Ionosphere, and Radiation Belt Research Group* **August 2024 – May 2025**

◇ Researched and developed methods for mass-generating spectrograms from Van Allen Probe magnetometer data capable of clearly showing plasma wave events

◇ Investigated effectiveness of using machine learning models to detect plasma wave events in Earth's magnetosphere

◇ Conducted preliminary analysis into plasma wave MLT and L-shell distributions for comparison to theoretical models

Analysis Intern – *NASA CARA* **May 2024 – August 2024**

◇ Continued work from summer 2023 internship researching and developing a new method of visualizing satellite conjunction events

◇ Wrote research paper on conjunction visualization for submission to 2025 AIAA/AAS ASC (accepted)

Software Engineering Intern – *NASA CARA* **June 2023 – August 2023**

◇ Developed new and expanded upon existing unit tests for the NASA CARA SDK

◇ Developed a new, highly-customizable visualization program for satellite conjunction events to be used by CARA in training and mission analysis

Communication

Invited Talk – *Applications of Computer Vision to Space and Plasma Physics* **April 2025**

◇ Selected to produce poster for CU Boulder undergraduate research symposium

◇ Presented results of magnetospheric plasma wave research to faculty, students, and public

NASA CARA Analysis Team Presenter – *Showcase and Comparison of Three Methods for Visualizing Near-Earth Satellite Conjunction Events* **August 2024**

◇ Presented results of several months of research and development into satellite conjunction visualization building on previous work and incorporating various new methods and techniques

2023 SIAM Front Range Student Conference - *We Put the "UN" in FUN: The Mathematical Guide to Saving the World* **March 2023**

◇ Presented results of mathematical modeling paper to peers and professors at regional conference

Leadership

Outreach Chair – *University of Colorado Boulder Astronomy Club* **Fall 2023 – Present**

◇ Coordinated events with local schools and organizations to boost community involvement and interest in astronomy

◇ Facilitated organization and execution of club events, including stargazing outings, panel nights, and study sessions