Amanda Laura Hogan

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EDUCATION

Rice University – Houston, TX *May 2025*
Professional Science Master's in Space Studies GPA: **3.6/4.0**
    Awarded Professional Science Master's Corporate Scholarship *January 2024*

Rice University – Houston, TX *May 2024*
Bachelor of Science in Biosciences, Cell Biology & Genetics concentration
Minor in Data Science

PROFESSIONAL EXPERIENCE

Health and Medical Standards Intern *October 2023 – Present*

NASA Johnson Space Center | KBR, HHPC2 – Houston, TX

- Support the development and maintenance of NASA-STD-3001 human spaceflight technical standards
- Conduct risk assessments of crew health, habitability, and medical operations for the Human System Risk Board (HSRB)
- Authored the Microbiology in Spaceflight Technical Brief, consolidating current standards and recommending design applications
- Currently authoring a white paper on CO_2 washout data collection methods for spaceflight suits and the derivation of NASA standards from data

Microbiology Discovery Intern *May 2023 – August 2023*

Pivot Bio – Berkeley, CA

- Designed and executed a project to identify and isolate constitutively active promoters in the genome of a non-model bacteria to enhance performance of soybean crops
- Presented weekly project updates and gave both technical and company-wide final presentations

Computational SIDS Researcher *January 2024 – May 2024*

Data Science Capstone Team | Rice University, Baylor College of Medicine – Houston, TX

- Developed a machine learning pipeline to identify cardio-respiratory signatures predicting death in mouse models for sudden infant death syndrome (SIDS)
- Engineered feature extraction techniques to analyze waveform data and uncover patterns linked to disease
- Maintained schedule to meet project milestones & coordinated meetings with the BCM lab group

LEADERSHIP EXPERIENCE

Ion Student Ambassador *August 2024 – Present*

- Plan student-centered events for the Ion in Houston, develop an entrepreneurship ecosystem for students

R.A.C.T. (Rice Artemis Challenge Team) Member *January 2023 – March 2023*

- Competed on the SEDS-Rice team in the SEDS USA-SSPI challenge to design a Mars Gateway spacecraft

Society of Women in Space Exploration (SWISE) Rice: President *March 2021 – March 2022*

- Contacted guest lecturers, managed volunteer effort and helped plan the Reach for the Stars STEM Festival

TECHNICAL SKILLS

Programming & Data Science: Python, R, MATLAB (Advanced); JavaScript, Git/GitHub, Docker (Basic)
Databases & Cloud: SQL, Google BigQuery, Azure SQL Database/Synapse Analytics (Basic)
Software & Tools: MS Office, LaTeX, Jira, Asana (Advanced), SolidWorks (Basic)
Other: Agile Project Management, Risk Assessment, Medical Human Factors, Computational Biology & Bioinformatics (Geneious, BLAST, PICRUSt2), Technical Writing, Leadership & Mentorship