

PERSONAL STATEMENT

HARVARD DEPARTMENT OF ASTRONOMY · PHD PROGRAM · FALL 2024

As a member of the Department of Astronomy at Harvard University, I would work to ensure all students feel personally and academically supported. I believe my passion for open-access knowledge, open-source software, and experience organizing events emphasizing diversity would contribute positively to the department's welcoming research atmosphere.

My graduate aerospace engineering research led me to a welcoming open-source scientific software community. After presenting at JuliaCon 2021, computational researchers contacted me to collaborate on future projects, and share new research methodologies. After finding this community, I have released open-source notes and software packages. Most of my contributions have taken the form of astrodynamics software packages, released to Julia's General registry. Overall, I have published 16 open-source software packages; all are hosted on my GitHub profile, [@cadojo](#). My personal website, [loopy.codes](#), lists and summarizes each open-source project. I firmly believe in open-access knowledge, and I will continue to share my research software (as I am able) to advance the scientific community's free educational resources.

I have been encouraged to find so many welcoming researchers within the astronomy community. I am particularly thankful for Astrobites and their commitment to improve access to education for all students interested in astronomy. As a graduate student, I will apply to Astrobites and release open-access notes as I am able to advance accessibility within astronomy education.

As the Professional & Personal Development Committee Co-lead at NASA's Johnson Space Center, I helped to organize a panel discussion which featured several career employees who are members of the LGBTQ+ community. The event's purpose was to connect early-career employees with experienced employees, and expose new employees to the past and present experiences of the LGBTQ+ community within the aerospace industry. At Harvard University, I would seek out similar opportunities to share diverse perspectives and expose students to each others' lived experiences.

The astronomy community is strengthened by its diversity. As a computational astrophysics researcher, I will continue to emphasize accessibility in my work and seek out new opportunities to learn from and support marginalized communities within scientific fields.