
EDUCATION

- 2024 **Master of Arts, Astronomy**
Wesleyan University, Middletown, CT
Concentration: Planetary Science
- 2022 **Associate in Science, Astronomy | High Honors**
Associate in Science, Physics | High Honors
Associate in Science, Math | High Honors
Cabrillo College, Aptos, CA
- 2016 **Bachelor of Arts, English | Phi Beta Kappa Honors**
Oberlin College, Oberlin, OH
Minor: Environmental Studies, Capstone: Postcolonial Anglophone Literatures

RESEARCH

- 2023-Present **Graduate Student Researcher, Astronomy Department, Wesleyan University**
Advisor: Seth Redfield
Modeling Lyman- α absorption due to 15 known local interstellar clouds that surround the Solar System. Our models predict what the Alice UV spectrograph aboard NASA's *New Horizons* spacecraft should see as it reaches the edge of the heliosphere, which we compare with *New Horizons*' first all-sky observations.
- 2021-Present **Post-bacc Researcher, Astronomy & Astrophysics, University of California, Santa Cruz**
Advisor: Enrico Ramirez-Ruiz
Investigating the characteristics of stars that have survived an encounter with a supermassive black hole. Simulating the long-term evolution of tidally disrupted stars using MESA code. By comparing theoretical deviation of disrupted vs. undisturbed stars, our findings provide observational detection strategies.
- 2022 **Post-bacc Researcher, Plankton Monitoring Lab, Cabrillo College**
Advisors: Nicole Crane, Jane Silberstein.
Contributed to NOAA/NCCOS west coast plankton monitoring applied research project, increasing understanding of harmful algal blooms in Monterey Bay National Marine Sanctuary. Gained experience in plankton collection and identification, microscopes, data analysis/entry, and scientific illustration.

AWARDS & HONORS

- 2023 **Chambliss Astronomy Achievement Honorable Mention, American Astronomical Society**
Honorable Mention for poster presentation award at the 241st AAS meeting in Seattle, WA.
- 2022 **First Place, NASA Community College Aerospace Scholars**
Led team to victory in national engineering competition as lunar mission Project Manager.
- 2021 **Student Presentation Award, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science**
Best astrophysics research poster presented at the National Diversity in STEM Conference.
- 2021 **PEACE Award, Cabrillo College Office of the President**
Exceptional literary work addressing legacies of colonialism on campus.
- 2021 **Student of the Month, Cabrillo College**
Academic accomplishment and contributions to the campus and wider community.
- 2020 **Norton Writer's Prize, W. W. Norton & Company Inc.**
National competition for outstanding academic writing by undergraduates. [Essay](#).
- 2016 **Inducted Member, Phi Beta Kappa Honor Society**
Breadth and depth in arts and sciences, scholarly achievement, and excellence of character.
- 2012 **National Merit Scholar Finalist, National Merit Scholarship Corporation**
Top 3% PSAT achievement nationwide.

GRANTS & SCHOLARSHIPS

- 2023 **Travel Grant**, *NASA Connecticut Space Grant Consortium*
Funded travel to 243rd AAS conference in New Orleans, LA.
- 2023 **Travel Grant**, *Graduate Student Association, Wesleyan University*
Funded travel to *New Horizons* Science Team Meeting in Boston, MA.
- 2023 **FAMOUS Travel Grant**, *American Astronomical Society*
Funded travel to 241st AAS conference in Seattle, WA.
- 2022-2024 **Teaching Assistantship**, *Astronomy Department, Wesleyan University*
2-year fully-funded TA stipend with tuition remission for astronomy master's program.
- 2021-2022 **Lamat Research Fellowship**, *University of California, Santa Cruz*
1.5-year fully-funded research stipend with Prof. Enrico Ramirez-Ruiz's high-energy astrophysics group.
- 2021 **Wanda Garner Non-Endowed Scholarship**, *Mathematics Department, Cabrillo College*
Academic achievement and contributions to the STEM community.
- 2020 **Ted Bowen Memorial Endowed Scholarship**, *Physics Department, Cabrillo College*
Academic achievement and contributions to the STEM community.
- 2015 **President's Public Service Fellowship**, *Office of the President, Oberlin College*
Summer fellowship for community-engaged work in youth empowerment and leadership.
- 2012-2016 **John F. Oberlin Scholarship**, *Oberlin College*
Four-year tuition scholarship for exceptional academic achievement.

RESEARCH PRESENTATIONS

- 2024 **Invited Talk**, *45th Scientific Assembly of the Committee on Space Research*
Modeling Lyman-Alpha Emission in the Local Interstellar Medium as Observed by *New Horizons*
- 2024 **Talk**, *Astronomy Department Research Seminar, Wesleyan University*
Shadows on the Sky: Mapping *New Horizons*' Vision of the Local Interstellar Cloudscape
- 2024 **Talk**, *New Horizons Science Team Meeting #55*
Modeling the Impact of LISM Clouds on *New Horizons*' Lyman-Alpha Observations
- 2024 **Poster**, *243rd Meeting of the American Astronomical Society*
Evaluating *New Horizons* Lyman-Alpha Observations From the Edge of the Solar System for Evidence of a Local ISM Cloudscape
- 2023 **Talk**, *Astronomy Department Research Seminar, Wesleyan University*
Black Hole Survival Guide: Finding Stars that Endure Partial Tidal Disruption
- 2023 **Poster**, *241st Meeting of the American Astronomical Society*
Black Hole Survival Guide: Finding Stars that Endure Partial Tidal Disruption
- 2022 **Talk**, *University of California, Santa Cruz 11th Annual Lamat Astrophysics Research Symposium*
Searching for Stars Disrupted by a Supermassive Black Hole
- 2022 **Poster**, *Conference for Undergraduate Women in Physics (CUWiP)*
Searching for Stars Disrupted by a Supermassive Black Hole
- 2021 **Invited Talk**, *Latinx United at Cabrillo for Engineering and Science (LUCES)*
Searching for Stars Disrupted by a Supermassive Black Hole
- 2021 **Poster**, *SACNAS National Diversity in STEM (NDiSTEM) Conference*
Searching for Stars Disrupted by a Supermassive Black Hole
- 2021 **Talk**, *University of California, Santa Cruz 10th Annual Lamat Astrophysics Research Symposium*
Star, Interrupted: Meeting a Black Hole and Living to Tell the Tale

STEM OUTREACH

- 2024 **Slugs & Steins Lecture**, *University of California, Santa Cruz*
Gave lecture entitled “The Lamat Institute: Re-Imagining Leadership and Mentorship in Astronomy.”
- 2023 **Community Engagement Volunteer**, *Comm. for the Protection of Astronomy and the Space Environment, AAS*
Assisted with outreach regarding issues of satellite constellations, light pollution, and space debris.
- 2023 **Star-gay-zing**, *Astronomy Department, Wesleyan University*
Spearheaded first annual Pride month event, including lectures, planetarium, telescope observing, and discussions to promote LGBTQ+ belonging in astronomy. Procured funding from city Pride Commission.
- 2023 **Science Saturdays**, *Wesleyan University*
Assisted with on-campus STEM experience for elementary-age youth.
- 2019-2022 **Women in Science and Engineering Club**, *Cabrillo College*
Events Coordinator (2021-22) providing opportunities for gender minorities in STEM. Collaborated with Indigenous Students Club to engage hundreds of students/faculty across campus re: decolonizing science.
- 2021 **Picture a Scientist**, *STEM Colloquium, Cabrillo College*
Organized and moderated a panel of scientists addressing harassment in STEM with Title IX Office.
- 2020 **Bulletins From the Basin**, *Big Basin Redwoods State Park*
Filmed Junior Ranger programs and educational media on natural science topics. 28,000+ views.
- 2015 **Youth Coordinator**, *Children & Teen Services, Oberlin Public Library*
Mentored and tutored low-income, at-promise youth weekly at drop-in technology center.

WORK EXPERIENCE

- 2024 **Astronomy Intern**, *Scientists-in-Parks, National Park Service*
Led telescope programs and gave public astronomy talks at Joshua Tree National Park, reaching hundreds of visitors each week. Assisted with endangered species monitoring and data collection.
- 2022-2024 **Astronomy Public Outreach**, *Van Vleck Observatory, Wesleyan University*
Hosted weekly public observing nights: giving science talks, operating Digitalis planetarium, historic 20” refractor telescope, and 8” and 24” reflector telescopes. Trained new students on telescope operations.
- 2022-2024 **Teaching Assistant**, *Astronomy Department, Wesleyan University*
Courses: ASTR 211 – Observational Astronomy (majors). ASTR 155 – Introduction to Astrophysics (majors). ASTR 105 – Exploring the Cosmos (non-majors). Duties: lead weekly labs, observing sessions, office hours, grading, guest lecture.
- 2019-2021 **Interpretive Senior Park Aide**, *California State Parks*
Engaged public regarding natural/cultural resource conservation. Designed and led NGSS-aligned fieldtrips for hundreds of students annually. Collected and interpreted data on wildlife, managed volunteers, designed wildfire communications and funding advocacy.
- 2019-2020 **Math & English Tutor**, *Learning HUB, Cabrillo College*
Provided drop-in tutoring in mathematics from Pre-Algebra through Calculus. Assisted students with essay editing, grammar, time management, and metacognitive awareness. Fostered inclusive, welcoming learning environment. Completed tutor training course.
- 2016-2019 **Program Associate**, *Djerassi Resident Artists Program*
Coordinated daily program operations for artists-in-residence at remote mountain retreat. Managed volunteer docents, land art installation program, in-house photography, and archives. Led guided art hikes and assisted with public events for 1,000 visitors annually.
- 2012-2016 **Library Assistant**, *Clarence Ward Art Library, Oberlin College*
Assisted patrons with research questions at Circulation Desk. Managed rare book purchases and maintained Special Collections, processed acquisitions, curated displays and blog.

SKILLS

Languages	English, French
Technical	Python for scientific computing, MESA, Inkscape
Certifications	Wilderness First Responder , <i>National Outdoor Leadership School, 2018-2026</i> Ham Radio Technician License , <i>American Radio Relay League, 2018</i> Social Justice Mediation & Facilitation , <i>Yeworkwab Belachew Center for Dialogue, 2014</i>

MEDIA & PRESS

- 2024 **Lamat Institute: Re-Imagining Leadership and Mentorship in Astronomy**, *UC Santa Cruz* ([Lecture](#))
- 2023 **Van Vleck Observatory Opens its Doors for Community Outreach**, *Wesleyan University* ([Article](#))
- 2021 **Lamat Fellow Rewa Clark Bush Receives Presentation Award**, *Lamat Institute* ([Article](#))
- 2020 **Big Basin Was Home to California's First Female Park Ranger**, *The Lily* ([Article](#))
- 2015 **President's Public Service Fellows Present Summer Successes**, *Oberlin College* ([Article](#))