

EDUCATION

M.S. in Astronomy and Astrophysics, San Francisco State Univ. *Aug. 2025 –*

B.A. in Astronomy, Cum Laude, Cornell University *Graduated May 2024*

- Minor in science communication.

RESEARCH EXPERIENCE

Gilead Technical Research Assistant, San Francisco State Univ. *Aug. 2025 –*

- Selected as one of two students in Astronomy & Physics Department for position. Running Bayesian model comparisons of atmospheric retrievals for Earth-like exoplanets via POSEIDON, applying SETI pipelines to NenuFAR telescope data, writing JWST proposal (PI) to study high-log(g) planets (5 hr/week); presenting weekly planetarium shows while revamping astronomy lab curriculum (5 hr/week).

Astronomy Research Assistant, Cornell University *Sep. 2022 – Aug. 2025*

- [First-author paper in MNRAS](#): refined estimates of habitable zone planets using Gaia DR3. Continuing this research in 2026 by developing [public visualizations](#) and leading atmospheric retrieval paper.

WORK EXPERIENCE

Graduate Teaching Assistant, San Francisco State Univ. *Aug. 2025 – May 2026*

- Teaching physics or astronomy lab (5 hr/week), quantifying effects of graph literacy curriculum I developed.

Science Communicator, Carl Sagan Institute, Cornell University *March 2022 –*

- Co-organized [Carl Sagan's 90th Birthday events](#) at Cornell for thousands of guests (in-person and online).
- Write posts/articles, fully manage CSI social media, conduct interviews, produce/edit [videos](#) (all ongoing).

Planetarium Facilitator, Saint Louis Science Center *Aug. 2021 – Jan. 2024*

- Presented my own live, 45-minute shows to upwards of 150 guests with a Zeiss Universarium projector.

President and Outreach Coordinator *June 2022 – June 2024*

Cornell Astronomical Society, Fuertes Observatory

- Authorized to open observatory, operate telescopes for hundreds of weekly guests (from 2021–2025).
- Spearheaded [successful day trip](#) to eclipse totality on April 8th, 2024—arranged buses, waivers, supplies for four hundred Cornell students. Promoted eclipse safety to thousands locally via fliers, videos.
- Directed events such as lecture series, two Carl Sagan Nights, and [our telescope's 100th anniversary](#).
- Mentored newer members, guided monthly telescope training.
- Wrote articles, advised other writers, and helped edit each issue of monthly public newsletter.
- Conducted ~monthly private tours (Girl Scouts, high schoolers w/ individualized education plans, etc.).

Publicity Lead, Alpha CubeSat

Sep. 2021 – July 2024

Space Systems Design Studio, Cornell University

- Designed temporary museum [exhibit](#) in collaboration with Intrepid Sea, Air, and Space Museum staff.
- Produced videos about Alpha CubeSat—wrote and presented scripts, filmed my own footage, and edited final product. Spoke in panel discussions. Created [video](#) that played in the Intrepid exhibit.
- Oversaw the development of an [Alpha CubeSat website](#) and coordinated work of publicity team.

AWARDS

Achievement Rewards for College Scientists (ARCS) Scholar 2026-27

Finalist, CSU Student Research Competition April 2026

Second Prize, Griffith Observer Science Writing Contest July 2023

- Placed second in the Joan and Arnold Seidel Griffith Observer Science Writing Contest for "[When Spaceships Pass in the Night: Exoplanets and the Search for Life](#)"—article published in Oct. 2023 issue.

PUBLICATIONS

- Bohl A.*, Lawrence L.*, **Lowry G.***, Kaltenegger L. Probing the Limits of Habitability: A Catalog of Rocky Exoplanets in the Habitable Zone. [Published in MNRAS March 2026.](#)
- Radica M. et al. (incl. **Lowry G.**) Super-Solar Metallicity and Tentative Evidence for Photochemistry on WASP-96 b from JWST and Ground-Based VLT Transmission Spectroscopy. [Published in AJ April 2026.](#)
- Kaltenegger L., Bohl A., Novak C., **Lowry G.** Planets on the Edge: From ExoEarth to ExoVenus in the Transition Zone. **Submitted to ApJL.**
- Flagg L. et al. (incl. **Lowry G.**). Support for sub-Neptune Cool Dayside Temperatures: The Null Detection of an Eclipse of GJ 3470b with JWST. **Submitted to AJ.**
- Umansky-Castro J. et al. (incl. **Lowry G.**) Successful Deployment of the First Free-Flying Light Sail: Results from the Cornell University Alpha CubeSat Mission. [Published via 40th Annual Small Satellite Conference.](#)
- **Lowry G.***, Kaltenegger L., MacDonald R. Impacts of Stellar Contamination on Prime Earth-like Exoplanet Spectra. To be submitted to MNRAS.
- Turner J.D., **Lowry G.**, Jacobson-Bell B., Gutierrez G., Hellbourg G. A Low-Frequency Narrowband Technosignature Search Toward 3i-ATLAS with NenuFar. To be submitted to AJ.
- Turner J.D., **Lowry G.** Probing the 3-D nature of the atmosphere of the ultra-hot Jupiter WASP-121b using GHOST high-resolution observations. To be submitted to ApJ.
- Solano-Oropeza D., Turner J.D., **Lowry G.**, et al. Ultra-precise constraints on the orbital decay of WASP-12b from TESS. To be submitted to ApJ.

PROPOSALS

- **PI for Cycle 6 JWST proposal** (submitted). Gravity as a Guide: Metallicities and Origins of High-Surface Gravity Giant Planets.

CONFERENCE PRESENTATIONS

- **Lowry, G.** Visualizing the Habitable Zone with ArcGIS & Terragen: Exploration for Living Rooms & Classrooms. Poster presentation, IAU 409: Innovative Research and Techniques in Astronomy Communication, Nov. 2026.
- **Lowry, G.,** Kaltenegger, L. Prime Earth-like Exoplanets and their Light Fingerprints. [iPoster](#) presentation, AAS Meeting #247, Jan. 2026. **Finalist for Chambliss Astronomy Achievement Student Award.**
- Sanchez-Fleming, M. et al. (incl. **Lowry, G.**), Undergraduate-Run Outreach with a Centenarian Telescope: Fuertes Observatory and the Cornell Astronomical Society. Contributed [iPoster](#), AAS Meeting #247, Jan. 2026.
- **Lowry, G.,** Kaltenegger, L. Prime Earth-like Exoplanets and their Light Fingerprints. Oral presentation at Bay Area Exoplanet Meeting, Nov. 2025.
- **Lowry, G.,** Kaltenegger, L. Prime Earth-like Exoplanets and their Light Fingerprints. Poster presentation at Emerging Researchers in Exoplanet Science (ERES) Symposium X, June 2025.
- **Lowry, G.,** Kaltenegger, L. Visualizing the Habitable Zone: A New Public-Facing Habitable Exoplanet Catalog. Oral presentation at AAS Meeting #245, Jan. 2025.
- **Lowry, G.,** Kaltenegger, L. Visualizing the Habitable Zone: A New Public-Facing Habitable Exoplanet Catalog. Poster presentation at ERES Symposium IX, July 2024.

OUTREACH PRESENTATIONS

- Weekly planetarium shows, Charles F. Hager Planetarium, October 2025–May 2026.
- [The Search for Intelligent Life on Earth](#) - public talk for Cornell Astronomical Society, Nov. 7, 2025.
- [Finding Aliens is Harder Than You Think](#) - Astro on Tap in Ithaca, NY, June 12, 2025.
- Presenting Science to the Public - talk for students of the Cornell Astronomical Society, April 18, 2025.
- LGBTQ+ astronomers panel for Girl Scouts Beyond Program, Cornell University, Oct. 18, 2024.
- Moderator and host of [Audience Q&A with Ann Druyan](#) at Cornell Cinema, February 13, 2024.
- Carl Sagan's Birthday Night at the Cornell Astronomical Society: talk on his life and work, Nov. 7, 2023.
- NASA Spaceflight Live: TINY SATS - NASA's CubeSat Launch Initiative and Beyond panel, June 25, 2023.
- Yuri's Night at Cornell Astronomical Society: talk on human spaceflight, April 2022, 2023, 2024.

IN PRESS

Research

- [There Are 45 Earth-Like Worlds Where Aliens May Exist, Scientists Say](#) - Forbes, April 2026
- [Astronomers reveal best places to hunt for alien life](#) - Newsweek, March 2026
- [The 45 planets most likely to host alien life, according to astronomers](#) - Popular Science, March 2026
- [If we ever build a Project Hail Mary spaceship, these are the worlds we should visit to find alien life and save Earth](#) - BBC Sky at Night Magazine, March 2026
- [The best places to look for alien life: Scientists identify 45 Earth-like worlds to explore for a 'Project Hail Mary'](#) - Royal Astronomical Society, March 2026
- [Where to find other Earths? New list narrows down the targets](#) - Cornell Chronicle, March 2026

Outreach

- [Lunar eclipse spotting at Cornell: Here's how it looked and when to see the next one](#) - Ithaca Journal, March 2025
- [Cornell honors Sagan's 90th birthday with celebration of science](#) - Cornell Chronicle, Nov. 2024
- [Totality awesome: 400 students travel north for rare eclipse](#) - Cornell Chronicle, April 2024

- [Journey into darkness: Cornell Astronomical Society traveling to eclipse's path of totality](#) - Ithaca Journal, March 2024
- ['Cosmos' screening features ice cream and live Q&A with Ann Druyan](#) - Cornell Chronicle, Feb. 2024
- [Postcards from Earth: Hologram project showcased at Intrepid](#) - Cornell Chronicle, Feb. 2023
- [Crowd gathers to wish 'happy birthday' to Fuertes telescope](#) - Cornell Chronicle, Oct. 2022
- [Spacecraft destined for orbit following balloon test](#) - Cornell Engineering Magazine, Jan. 2022

SKILLS

Python, Matlab, Mathematica, Terragen 4 (VFX/CGI), OpenSpace (astronomy data visualization), ArcGIS Pro & Online, Adobe Photoshop & InDesign, Final Cut Pro X (video editing/animation), Microsoft Office Suite, Zeiss Universarium Mark IX star projector