

Ellen Torres Thompson

Curriculum Vitae

✉ ellent@nmsu.edu

EDUCATION

New Mexico State University (NMSU)

Astronomy PhD

Las Cruces, NM

Expected May 2026

University of California, Berkeley (UCB)

Double Major: Astrophysics BA; South and Southeast Asian Studies BA

Berkeley, CA

August 2021

RESEARCH EXPERIENCE

Space Sciences Laboratory

Undergraduate Research Assistant

Berkeley, CA

September 2019 - May 2021

- Worked with Dr. John Tomsick and Dr. Andreas Zoglauer analyzing event files from the NuSTAR X-ray telescope containing the observational artifact of Stray Light
- Programmed Stray Light identification algorithm to be applied to select graded event files
- Created Stray Light region files for future use in studies of accreting compact objects
- Produced spectra from raw data and compared data products across software

WORK/VOLUNTEER EXPERIENCE

NMSU Astronomy Department

Teaching Assistant

Las Cruces, NM

August 2021 - Present

- Facilitates introductory astronomy laboratory
- Tutors students one-on-one in mathematical and physical foundations of astronomy

Lawrence Hall of Science

Planetarium Presenter

Berkeley, CA

June 2018 - August 2021

- Facilitated interactive 30-minute astronomy programs
- Adapted content difficulty level on a show-by-show basis depending on audience age range
- Participated in program revision process (i.e. updating script and graphics)

Floor Facilitator

- Supervised hands-on elementary level engineering activities
- Assisted visitors to seasonal exhibits such as *Dinosaurs in Motion* and *Reinventing Reality*

Livestream Panelist

- Collaborated with Lawrence Berkeley National Laboratory and Science at Cal for Live Science Series *What The Stars Tell Us* events
- Presented tutorial of online planetarium tool Stellarium and drew connections between stellar astrophysics research and amateur astronomy

Online Content Creator

- Scripting, filming, editing, and creating graphics for *Astrophysics Friday* video series
- Managing production team through leading group meetings and delegating tasks

UCB Astronomy Department

Berkeley, CA

Reach For The Stars Tutor

August 2019 - May 2021

- Prepared middle school students for Science Olympiad with lessons, problem sets, planetarium visits, and practice tests
- Co-wrote a preliminary regional *Reach For The Stars* test

Scientific Writing Mentor

- Advised a High School Freshman writing a review paper on *Neutrinos and Sustainable Energy* for submission to Journal of Student Research (High School Edition)

Astro Buddy Program Mentor

- Advised lower division undergraduate students in academic and personal matters relating to pursuing the Astrophysics major

Climate Advisor

- Devised and implemented solutions to problems with attitudes, behaviors, and standards concerning inclusivity and diversity
- Promoted awareness of campus resources for conflict resolution and mental health

Grizzly Peak Trail

Berkeley, CA

Private Stargazing Host

August 2019

- Identified and provided cultural/scientific background on visible constellations
- Discussed popular astronomy topics in an informal setting

PUBLICATIONS

- [“StrayCats: A catalog of NuSTAR Stray Light Observations,” ApJ, March 2021](#)
Brian W. Grefenstette, Renee M. Ludlam, Ellen T. Thompson, Javier A. García, Jeremy Hare, Amruta D. Jaodand, Roman A. Krivonos, Kristin K. Madsen, Guglielmo Mastroserio, Catherine M. Slaughter, John A. Tomsick, Daniel Wik, and Andreas Zoglauer

SKILLS

- Python Programming
- Operating Systems: Windows, Mac, Linux
- Analyzing astronomy data with SAOImage DS9 and NASA HEASoft
- Operating DigitalSky 2 Software for planetarium use
- Proficiency with troubleshooting visual and audio equipment
- Communicating science verbally, pictorially (e.g. digital animations, physical artwork, etc.), and in writing