

Guadalupe Tovar Mendoza

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🌐 lupitator.github.io

🐙 [lupitator](https://github.com/lupitator)

EDUCATION

Dual-title PhD, Astronomy & Astrobiology

University of Washington

2017 - present

Seattle, WA

Masters of Science, Astronomy

University of Washington

August 2019

Seattle, WA

Bachelor of Science, Astronomy & Physics

University of Washington

June 2017

Seattle, WA

RESEARCH EXPERIENCE

Graduate Research Assistant

Astronomy & Astrobiology, University of Washington

Sept 2017 - Present

Seattle, WA

Advisor: James R.A Davenport

- Modeled how stellar variability on small stars affects our ability to detect and characterize exoplanets using data from *Kepler*

Undergraduate Research Assistant

Astronomy & Astrobiology, University of Washington

Sept 2016 - June 2017

Seattle, WA

Advisors: Victoria Meadows, Jacob Lustig-Yaeger

- Used simulations of Earth as an exoplanet to explore the possibility of ocean detection by spatially mapping the ocean glint signal using time series, multi-phase, directly imaged synthetic observations

Summer Research Intern

Center for Astrophysics, Harvard University

June 2016-Aug 2016

Cambridge, MA

Advisors: Benjamin Montet & John Johnson

- Calibrated the *Kepler* space telescope full frame images to do better photometry which allowed us to study the magnetic cycles of Sun-like stars

Undergraduate Research Assistant

Astronomy, University of Washington

April 2015 - Dec 2015

Seattle, WA

Advisor: Woodruff Sullivan

- Created a program in IDL to generate the precession of Polaris over a time frame of 1,800 years
- Studied archaeoastronomy using a baroque Catholic basilica as an astronomical chronometer while studying abroad in Italy

Undergraduate Research Assistant

Astronomy & Astrobiology, University of Washington

Sept 2013 - March 2015

Seattle, WA

Advisors: Victoria Meadows, Giada Arney

- Performed and analyzed spectral simulations of different hazy terrestrial planetary atmospheres

TEACHING EXPERIENCE

University of Washington

2020-2021

Pre-Majors in Astronomy Program, Academic Advisor

Seattle, WA

- Responsible for mentoring and supporting 16 undergrad students in the Pre-MAP program
- Held weekly office hours, reviewed summer internship applications and wrote letters of recommendation

University of Washington

Winter 2019

Astronomy 101, Teaching Assistant

Seattle, WA

- Responsible for teaching and grading four lab sections of 20 students each

University of Washington

2018-2019

Astronomy 150: The Planets, Teaching Assistant

Seattle, WA

- Responsible for teaching and grading four lab sections of 20 students for four academic quarters
- Implemented quizzes and exams and led group discussions

Kennewick School District

Summer 2014

Academic Tutor

Kennewick, WA

- Led summer school tutoring sessions for students who needed extra help with math and English course materials

Seattle School District

Autumn 2013

Seattle World School Academic Tutor

Seattle, WA

- Responsible for leading after school math tutoring sessions for middle school students at the Seattle World School

WORK EXPERIENCE

Admissions Reader

Dec 2019 - Feb 2020

University of Washington

Seattle, WA

- Read and evaluated 1000 undergraduate admissions' applications

Student Ambassador

Sept 2015 - June 2017

University of Washington Office of Minority Affairs & Diversity

Seattle, WA

- Planned outreach conferences to host 80-200 high school students on campus to assist them in applying to college.
- Gave tours of campus to various groups of people and presented in student panels, cultural workshops, and at resource fairs.

College Assistance Migrant Program Peer Mentor

Sept 2016 – June 2017

University of Washington Office of Minority Affairs & Diversity

Seattle, WA

- Mentored eight first generation, freshmen students as they transitioned into their first year of college

HONORS AND AWARDS

- NSF Graduate Research Fellow (2017)

- Husky 100 recipient (2017)
- Ronald E. McNair Scholar (2016-2017)
- Washington NASA Space Grant Consortium Scholar (2013-2017)
- College Assistance Migrant Program Scholar (2013)
- Hispanic Academic Achievement Program Scholar (2013)

REFEREED PUBLICATIONS

4. Davenport, J. R. A., **G. Tovar Mendoza**, S. L. Hawley (2020) "10 Years of Stellar Activity for GJ1243" *AJ*, 160,36
3. Lustig-Yeager, J., V. S. Meadows, **G. Tovar** et al. (2018) "Detecting Ocean Glint on Exoplanets Using Multiphase Mapping" *AJ*, 156,301
2. Montet, B. T., **G. Tovar**, Foreman-Mackey, D. (2017) "Long Term Photometric Variability in Kepler Full Frame Images: Magnetic Cycles of Sun-Like Stars" *ApJ*, 851,116
1. Arney, G., V. S. Meadows, S. D. Domagal-Goldman, T. Robinson, D. Deming, T. Robinson, **G. Tovar**, E. T. Wolf, E. Schwieterman. (2017) "Pale Orange Dots: The Impact of Organic Haze on the Habitability and Detectability of Earthlike Exoplanets" *ApJ*, 836,49

PROFESSIONAL PRESENTATIONS

Modeling the Morphology of White-Light Flares <i>TESS Science Conference II (Poster)</i>	Seattle,WA <i>August 2021</i>
Planet Habitability <i>Earth & Space Sciences Seminar (Talk)</i>	Seattle,WA <i>April 2018</i>
Detecting Oceans on Exoplanets Using Phase- Dependent Mapping <i>Habitable Worlds Conference (Poster)</i>	Laramie,WY <i>Nov 2017</i>
Understanding the Activity Cycles of Solar Type Stars with Kepler <i>Northwest Astronomy Meeting (Poster)</i>	Bellingham,WA <i>Oct 2016</i>
Understanding the Activity Cycles of Solar Type Stars with Kepler <i>Banneker Institute Symposium (Talk)</i>	Cambridge,MA <i>Aug 2016</i>
The Meridian Line of the Basilica di Santa Maria degli Angeli <i>Undergraduate Research Symposium (Poster)</i>	Seattle,WA <i>Aug 2016</i>
Jupiter the King of the Planets <i>Theodor Jacobsen Observatory (Talk)</i>	Seattle,WA <i>April 2016</i>
The Effects of Clouds and Hazes on the Spectra of Terrestrial Planets <i>225th AAS Meeting (Poster)</i>	Seattle,WA <i>Jan 2015</i>
Titan's Atmosphere <i>Pre Majors in Astronomy Presentation (Talk)</i>	Seattle,WA <i>Dec 2013</i>

OUTREACH & VOLUNTEER EXPERIENCE

- Panelist: Research Community Connections - Undergrad Research Program (July 2021)
- First Generation Graduate Student Advisory Board (2018- present)
- Undergraduate Research Support Network Advisory Board (2017- present)
- Astronomy on Tap presenter
- Panelist: Women's Economic Empowerment – Breaking Gender Barriers and Advancing Equity (2018)

- UW Planetarium Presenter (2017-present)
- Outreaching Grad with Graduate Opportunities Minority Achievement Program (GO-MAP) (2019-present)
- Letters to a Pre-Scientist pen pal (2019-present)

Workshops

- NASA Astrobiology Summer School
- Catalyzing Advocacy in Science and Engineering (CASE) Workshop