Raphael E. **Hviding**

Astronomer · PhD Candidate · He/His

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 TheSkyentist | ⓘ ORCID | in rehviding

Research

Steward Observatory
Tucson, AZ

PhD Candidate under Professor Marcia Rieke and Professor Kevin Hainline
Aug. 2018 - Present

- Developing routines for finding high-redshift galaxies in the upcoming JADES survey (in prep.)
- Finding new AGN with MMT follow-up spectroscopy of novel machine learning AGN selection trained on HSC and WISE (in prep.).
- Created a new mid-IR color criterion for AGN down to lower luminosities based on SDSS spectroscopy and WISE.
- Refined dropout selection techniques as a NIRCam Extragalactic Science Team Member for upcoming JWST surveys.

Dartmouth College
Hanover, NH

Undergraduate Student under Professor Ryan Hickox
Apr. 2015 - Jun. 2018

- Characterized potential kiloparsec scale light echoes of the AGN in NGC 1068 using SALT Fabry-Perot Spectroscopy (in prep.).
- Testing Wide-field Infrared Survey Explorer infrared color selection of AGN with optical spectroscopy from SALT.

Space Telescope Science Institute
Baltimore, MD

Researcher studying Active Galactic Nuclei under Dr. Iva Momcheva and Dr. Gabriel Brammer
Apr. 2017 - Jun. 2017

- Studied the non-AGN origin of extended LIER emission using Hubble Space Telescope slitless grism spectroscopy.

Education

Department of Astronomy & Steward Observatory, University of Arizona
Tucson, AZ

Masters of Science
2018 - 2021

- Major and Minor in Astronomy & Astrophysics. Advisors: Professor Kevin N. Hainline & Professor Marcia J. Rieke

Dartmouth College
Hanover, NH

Bachelor of Arts
2014 - 2018

- Physics Major with High Honors, Mathematics Major, and Astronomy Minor

Honors & Awards

2022	**Awarded:**	Department of Astronomy Graduate Student Award for Service	*UArizona*
2018	**Awarded:**	National Science Foundation Graduate Research Fellowship	*NSF*
2018	**Awarded:**	College of Science Fellowship	*UArizona*
2018	**Awarded:**	International Travel Grant	*AAS*
2017	**Awarded:**	E.E. Just Scholar	*Dartmouth College*
2016	**Awarded:**	James O. Freedman Presidential Scholar	*Dartmouth College*

Computing

Developer:	**Galaxy/AGN Emission Line Analysis TOol (GELATO)**
	Python Code for Fitting Optical Spectroscopy
Programming:	**Python, Linux, SQL, HTML, GitHub, LaTeX, SLURM, PBS**

Languages

Native:	**English**
Spoken:	**Spanish, French (Basic)**
Written:	**Spanish**