

Education

B.Sc. Astronomy (with Honors) & Physics

🏛 University of Arizona 📅 2015-2019 📍 Tucson, AZ, USA

- Cumulative GPA: 3.6 (Cum Laude)
- **Study Abroad** Australian National University during Fall Semester 2019.
- **Honors Thesis** *ALMA Spectroscopic Observations of the $^{13}\text{CO}/\text{C}^{18}\text{O}$ Intensity Ratios in NGC602 and N22 of the Small Magellanic Cloud.*

Work Experience

Image Analyst

🏢 Maxar Technologies 📅 February 2021 - Present 📍 Remote

Utilized proprietary software toolkit to verify and correct 3D maps of Earth's surface. Contributed to the construction of a full-coverage 3D map of the Earth's surface.

- Analyzed 3D geocells for geospatial significant errors. Applied specialized algorithms to repair and fix errors.
- Met customer time and quality requirements while simultaneously communicating results and road blocks
- Worked with a completely remote team to satisfy customer and self-imposed goals in a timely manner.

Research Technician

🏢 University of Arizona Lunar & Planetary Laboratory 📅 May 2019 - Aug. 2020 📍 Tucson, AZ

Used Hubble Space Telescope observations to observe exoplanetary transits of WASP-69b, a gas-giant planet 163 light-years from our Sun. Analyzed Mg II Interstellar Medium Absorption toward WASP-121, a magnitude 10.4 star in the constellation Puppis.

- Used Python to develop scripts that extracted and cleansed data observed by a telescope. Investigated integrated data to identify instrumental effects and errors. Analyzed and modeled astrophysical parameters.
- Performed data visualizations for exoplanet transit detections and non-detections with Python.
- Analyzed temporal changes in solar spectra to compare with extracted stellar spectra, then documented differences. Manipulated data to create stellar emission models of stellar spectra.
- Verified previous parameter estimates using independently-developed modeling code. Produced technical and scientific reports communicating results to collaborators.

Outcome: Technical reports to program collaborators.

Honors & Awards

Cum Laude

University of Arizona • 2019

Vice-Chancellor Travel Grant

Australian National University • 2018

Technical Skills

- **Python** (Proficient)
- **UNIX** (Intermediate)
- **SQL** (Intermediate)
- **Microsoft Office Suite**
- **Google Suite**

Areas of Expertise

- **Data Analytics & Visualization:** NumPy, Pandas, Matplotlib, SciPy; image processing
- **Mathematical Modeling:** linear algebra; differential equations; signal analysis; regression analysis

Volunteer & Extracurricular Experience

Data Carpentry Workshop Assistant

University of Arizona BIO5 Institute • 2020

Radio Host & Sound Engineer

KAMP Student Radio • 2018 - 2019

Galileo Circle Scholar

University of Arizona • 2016-2018

Eagle Scout

Scouts BSA • 2013

President

Alpha Kappa Lambda Fraternity • 2017 - 2018

Physics Tutor

University of Arizona • 2017 - 2019