Education

Smith College Sept 2020 - May 2023

B.S. IN COMPUTER SCIENCE

Sept 2015 - May 2018

San Diego Mesa College A.A. IN PHYSICS

Skills

Languages Python | Java

Frameworks Numpy | Pandas | Scikit-Learn

Technical Data Analysis | Data Extraction | Data Quality Control | Project Management | Technical Documentation

Experience ___

Stanford University

INCOMING RESEARCH STUDENT | MACHINE LEARNING

Stanford, CA

Jun 2021 — August 2021

Dec 2020 — present

Boston, MA

MIT — Massachusetts Institute of Technology

RESEARCH ASSISTANT | ASTROPHYSICS

• Develop code in Python that fits planetary models to time series data arrays and automates the prediction times of future exoplanet events, using MCMC. Therefore, saving human-hours, telescope time, and monetary resources required by the collaboration to confirm the exoplanets and study them for habitability on the following mission.

NASA Exoplanet Science Institute at Caltech

Pasadena, CA

June 2018 — Sep 2020

RESEARCH SUPPORT ASSOCIATE | ASTROPHYSICS

• Created the first comprehensive database for exoplanets discovered via gravitational microlensing, hosted by the NASA Exoplanet Archive. Data is publicly available and used by the scientific community for proposals, visualizations, research, and analysis.

Harvard & Smithsonian Center for Astrophysics

RESEARCH STUDENT | ASTROPHYSICS

Cambridge, MA

June 2019 — Aug 2019

• Identified an infrared Si X emission line in a total eclipse measurement of the Sun's corona and used Gaussian fitting, with IDL, to find the intensity gradient as a function of distance from Sun's center. Thus, improving our understanding of the atomic physics of the Si X ion.

NASA — National Aeronautics and Space Administration

INTERN | ASTROPHYSICS

Greenbelt, MD

Feb 2019 — May 2019

• Analyzed hundreds of light-curve data files of low mass stars, using Python packages, to identify stellar flare rates, generate a stellar flare catalog and select stars for subsequent flare signature models to predict possibility of planet habitability.

NASA — National Aeronautics and Space Administration

INTERN | DATA SCIENCE

Washington D.C.

Oct 2018 — Jan 2019

• Wrote code in Python using machine learning and NLP to identify which NASA documents should be added to the National Archives which eliminated time intensive manual categorization, reduced operational costs, and increased accuracy by 30 percent.

NASA — National Aeronautics and Space Administration

NASA COMMUNITY COLLEGE AEROSPACE SCHOLAR

Houston, TX

Nov 2017 — Feb 2018

Authored a Mars mission proposal that led to an onsite invitation to NASA. There, I conceptualized a fictitious aerospace company which was assessed
by a panel of NASA employees based on the quality of the prototype rover, the company's infrastructure, proposed budget as well as the outreach
efforts.

Honors & Awards

- 2018 **Caltech WAVE Research Fellow**, Caltech California Institute of Technology
- 2018 **STEM Community Scholar**, San Diego Mesa College
- 2018 Academic Achievement Award, San Diego Mesa College
- 2017 Phi Theta Kappa Honor Society Inducted, Beta Beta Upsilon Chapter at San Diego Mesa College

Extracurricular Activities

Society for Advancement of Chicanos/Hispanics and Native Americans in Science

PRESIDENT

2017 - 2018

Computer Science Club at San Diego Mesa College

MEMBER

2017 — 2018

San Diego City College Robotics Club

2018