

Richard Tarbell

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EDUCATION

Master of Science in Data Analytics

University of Texas at San Antonio

Cumulative GPA: 4.0

Expected Graduation: August 2022

Bachelor of Science in Physics

University of Texas at San Antonio

Cumulative GPA: 3.0

May 2021

TECHNICAL SKILLS

Programming: Python (NumPy, Pandas, Scikit-learn), R (ggplot, dplyr), PROC SQL, L^AT_EX

Software: Jupyter Notebooks, RStudio, Tableau, SAS, VMware, VirtualBox, MS Office

Operating Systems: MacOS, Windows, Linux

WORK EXPERIENCE

Lab Assistant | *University of Texas at San Antonio (UTSA) - Dr. Anthony Rios*

January 2022 - Present

- Using publicly available IoT datasets to create database of questions and corresponding SQL queries that will be used in a user interactive question-answering system
- Working under a DoD grant my role includes supervising undergraduate students and assisting with SQL query creation to assure quality control in database creation

Research Assistant - Internship | *Universities Space Research Association (USRA)*

July 2021 – September 2021

- Reduced and Analyzed data from the SALT telescope with the PolSALT and PySALT Python packages
- Worked to configure the PolSALT package to be compatible with latest versions of MacOS

Student Reader/Grader | *University of Texas at San Antonio (UTSA)*

September 2020 – May 2021

- Managed grades for 350+ students taking AST 1013 and PHY 1603
- Assembled a database of problems for students to master Physics 1 concepts

Sales Specialist | *Recreational Equipment Inc. (REI)*

June 2018 – August 2020

- Led community classes on various topics ranging from outdoor gear to local parks
- Strengthened customer service and communication skills in a front of house position

RESEARCH EXPERIENCE

Undergraduate Research Assistant

January 2021 – May 2021

University of Texas at San Antonio - Dr. Eric Schlegel

San Antonio, TX

- Used Python packages such as CIAO, Matplotlib, and Sherpa to fit models from *AstroSat* data on Cataclysmic Variable (CV) observations
- Assisted and mentored fellow undergraduates with analyzing and fitting models

Undergraduate Research Assistant

June 2020 – June 2021

University of Texas at San Antonio - Dr. Angela Speck

San Antonio, TX

- Created models to determine composition of dust surrounding carbon rich stars with Fortran, Python, and Excel
- Presented findings at the 237th and 238th Annual American Astronomical Society meetings

ACTIVITIES

President | *Society of Physics Students (SPS)*

May 2019 – May 2021

- Outstanding Chapter Award 2019-2020
- Notable Chapter Award 2020-2021

Co-Founder | *Astronomy Club at UTSA*

November 2018 – May 2020

Student Volunteer | *Curtis Vaughn Jr. Observatory at UTSA*

March 2018 – May 2020