Richard Tarbell

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EDUCATION

Master of Science in Data Analytics   Cumulative GPA: 4.0
University of Texas at San Antonio   *Expected Graduation: August 2022*

Bachelor of Science in Physics   Cumulative GPA: 3.0
University of Texas at San Antonio   *May 2021*

TECHNICAL SKILLS

Programming: Python (NumPy, Pandas, Scikit-learn), R (ggplot, dplyr), SQL, LaTeX
Software: Jupyter Notebooks, RStudio, Tableau, MySQL, 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
- Assembling publicly available IoT datasets to create a database of questions with corresponding SQL queries for a interactive question-answering system
- Working with fellow students to assist with SQL query creation to assure quality control and database diversity

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   June 2020 – June 2021
University of Texas at San Antonio (UTSA) - 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

Undergraduate Research Assistant   January 2021 – May 2021
University of Texas at San Antonio (UTSA) - 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

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

PRESENTATIONS

iPoster Presentation | *American Astronomical Society*
- **Tarbell R**, Speck A. Radiative Transfer Modeling of the Circumstellar Shell around W Ori: Evidence for Dust pile up at ISM boundary. 238th Annual Conference of the American Astronomical Society; 2021 Jun 7-9; Virtual.