

Sarah Parker

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Summary of Qualifications

Passionate and driven individual, recently awarded a Masters of Science in Physics, with excellent knowledge and skills in SQL, Python, data analysis, and current astronomy research. Works well with a team or alone, and is a quick learner.

Education

Physics, Master of Science

University of Missouri

Degree Awarded: May 2020
Columbia, Missouri

Physics, Bachelor of Science

University of Wisconsin-Stevens Point (UWSP)
Minor: Mathematics

Degree Awarded: May 2018
Stevens Point, Wisconsin

Research Experience

- Cataloguing Galaxies in the Deepest Regions of Hubble Observation, Advisor: Dr. Yicheng Guo, August 2018-Present
- Research On Lenticular Galaxies, Advisor: Dr. Adriana Durbala, September 2017-May 2018
- Observing Run at Kitt Peak National Observatory, Advisor: Dr. Adriana Durbala April 2016, October 2016, and October 2017
- Solar Eclipse Research, Advisor: Prof. Arthur Stevenson, August 2017
- Research Experience for Undergraduates at Texas A&M University, Advisor: Dr. Peter Brown, May-August 2017
- Observing Run at McDonald Observatory, Advisor: Dr. Jennifer Marshall July 2017
- Research On Elliptical Galaxies, Advisor: Dr. Adriana Durbala, January 2016-May 2017
- ALFALFA Workshop at Green Bank Observatory, Advisor: Dr. Adriana Durbala, June 2016

Work Experience

- Teaching Assistant, University of Missouri, January 2020-May 2020
 - Plan and teach labs for algebra-based electrodynamics students
 - Communicate difficult concepts in a fun and effective way
- Research Assistant, University of Missouri, September 2018-May 2020
 - Analyze data from Hubble eXtreme Deep Field Image
 - Program in Python and use astronomical software
- Planetarium Lecturer, Allen F. Blocher Planetarium, UWSP January 2015-May 2018
 - Provide educational shows to school groups, clubs, and the general public
 - Operate multiple projectors, star ball, control panel, and computer
- Telescope Operator, Arthur J. Pejsa Observatory, UWSP January 2015-May 2018
 - Operate a 0.4 meter Meade computer-controlled telescope
 - Manage large groups of people
 - Provide relevant information on objects viewed through telescope
- Astronomy Tutor, UWSP Tutoring-Learning Center, October, 2015-May 2017
 - Help students improve study skills and test taking strategies
 - Have a thorough knowledge of Astronomy 100 course content
 - Develop activities and work with course instructor to promote learning

Public Outreach Experience

- Astronomy Public Outreach Assistant, September 2018-August 2020
 - Guide guests through observatory while providing intriguing and relevant information
 - Operate 0.4m telescope without guiding technology
- Physics and Astronomy Graduate Student Association (PAGSA) Social Events Coordinator January 2019-December 2019
 - Organize and plan events for PAGSA
 - Plan and keep track of expenditures
- Society of Physics Students (SPS) President September 2017-May 2018
 - Organize public outreach and club activities
 - Lead club meetings
 - Communicate scholarship opportunities to SPS members
- Star Party Host, Texas A&M University May-August 2017
 - Operate various Meade telescopes
 - Provide relevant information on the objects viewed through the telescope
- Society of Physics Students Treasurer January 2015-May 2017
 - Manage club funds
 - Help with organizing public outreach and club activities
- Team Lead, WSGC Collegiate Rocket Launch October 2016-May 2017
 - Founded University of Wisconsin-Stevens Point's first Collegiate Rocket Team
 - Design and fabricate a high-powered rocket from scratch which generated energy during flight, as well as using Python to predict altitude and power output
 - Program Arduino Uno units to record in-flight data
 - Manage and delegate responsibilities to the team, write reports, and give presentations

Awards

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- UWSP Department of Physics & Astronomy Monica E. Bainter Scholarship, May 2017
 - Wisconsin Space Grant Consortium (WSGC) Undergraduate Research Fellowship, March 2016, March 2017
 - Wisconsin Space Grant Consortium (WSGC) Undergraduate Scholarship, March 2016, March 2017
 - UWSP Department of Physics & Astronomy First-Year Scholarship, September 2014

Publications and Presentations

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- "Sizes of Galaxies" University of Missouri Astronomy Seminar, April 2019
 - "Lenticular Galaxies in Different Environments – Isolated versus Group Environment" University of Wisconsin-Stevens Point Poster Presentation, May 2018
 - "Researching Light Curves of Type Ia Supernovae: Texas A&M REU 2017" University of Wisconsin-Stevens Point Department of Physics and Astronomy Colloquium, October 2017
 - "Elliptical Galaxies in Different Environments – Isolated versus Group Environment" Wisconsin Space Grant Consortium Conference Poster Session, August 2017
 - "Comparison of Light Curves for Type Ia Supernovae in the Optical and Ultraviolet" Texas A&M REU Poster Presentation, August 2017
 - "Elliptical Galaxies in Different Environments – Isolated versus Group Environment" University of Wisconsin-Stevens Point Poster Presentation, May 2017
 - "To Infinity and Back: Construction and Flight of an Experimental High Altitude Rocket" University of Wisconsin-Stevens Point Poster Presentation, May 2017