

MARINA WREN BERRY

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University of Texas at Austin

B.S. CHEMISTRY (3.76)

SUMMARY

I am currently pursuing a PhD in physical chemistry at the University of Texas at Austin with the Milliron Group. While completing my bachelor's degree, I balanced a full academic course load along with varsity sports, extracurricular activities, and a part-time job. My academic training has given me a diverse background in multiple chemistry disciplines. My strength and interest lie in exploring solutions to theoretical and physical chemical phenomena and researching uses for synthesized transition metal complexes. I'm passionate about being part of a team. As a former NCAA Division III athlete, I have learned to motivate others to work hard, add value, and act with integrity. Culture and purpose are very important to me. I am an open, collaborative, and trustworthy teammate.

SKILLS

Instrumentation Experience:

- Ultraviolet visible spectroscopy
- Fluorescence Spectroscopy
- Inductively Coupled Plasma Mass Spectrometry
- Gas Chromatography – Mass Spectrometry
- High-Performance Liquid Chromatography
- Proton Nuclear Magnetic Resonance
- Infrared Spectroscopy

Analytical and computational programs:

- ChemDraw
- SciFinder
- ChemCompute
- MS Excel, Word, PowerPoint, Outlook

Academic Research:

- Webinar presentation on CRISPR enzyme
- Synthesis plans for transition metal complexes used for dehydrogenation of ammonia borane
- Readings in STM
- Coral reef restoration exploration in Caribbean Netherlands

EXPERIENCE

UNDERGRADUATE RESEARCH-LAB ASSISTANT | 09/2020 to Current University of Mary Washington – Fredericksburg, VA

I worked closely with chemistry faculty to research and test the uses of Scanning Tunneling Microscopy in order to explore surface mapping procedures and surface chemistry. Due to the COVID-19 pandemic, working in the lab was not an option due to social distancing regulations. During the fall of 2020, I spent the semester reading previous applications of STM and reviewing the detailed introduction to Scanning Tunneling Microscopy by Julian Chen. There is hope that in the Spring semester of 2021 I will be able to work with the technology to map graphite surfaces and eventually other surface molecules.

ACS STUDENT PRESIDENT | 05/2020 to Current University of Mary Washington - Fredericksburg, VA

As an active member of the University's student ACS chapter, I worked to provide all chemistry students with as many additional opportunities to enhance their undergraduate experiences despite the impact of the pandemic by:

- Setting up virtual tutoring on Zoom for students enrolled in general chemistry, organic chemistry, analytical chemistry, biochemistry, inorganic chemistry, physical chemistry, and advanced lab courses
- Preparing an outreach "magic show" for virtual parent's weekend in order to create interest and educate views on fascinating, basic chemistry concepts
- Assisting in the creation of virtual presentations for students on alumni's graduate school experiences

- Organizing the contactless sale and distribution of custom lab coats for all students in the chemistry department as a club fundraiser

UNDERGRADUATE STUDENT-LAB AID | 01/2020 to Current

University of Mary Washington – Fredericksburg, VA

I assisted chemistry faculty in introductory chemistry lab courses by preparing reagents, setting up lab equipment, answering student questions, and cleaning laboratory tools in preparation for the following week.

COACH- USA VOLLEYBALL | 11/2018 to Current

Core Volleyball Club – Fredericksburg, VA

Austin Skyline Juniors Volleyball Club – Austin, TX

As a part time employee, I worked with girls ages 11-18 as a volleyball coach. I worked to go beyond teaching only the game, but educating the girls on the importance of team building, leadership, and self-representation in the college recruiting process. I feel this work experience has shaped me as a team leader and given me the ability to communicate effectively.

EDUCATION AND TRAINING

University of Mary Washington – Fredericksburg, VA

B.S

Chemistry (ACS certified), 2021

HONORS

Member of the Chi Beta Phi Honor Society

- 2020,2021

President of the Chi Alpha Sigma Honor Society

- 2020,2021

President's List

- Earned a 4.0 GPA during a full-time semester (2018, Spring 2019)

Dean's List

- Earned a 3.5+ GPA during a full-time semester (Fall 2017, Spring 2020, 2021)

Capital Athletic Conference All Academic team

- Earned a 3.3+ GPA during a full-time academic year of NCAA DIII volleyball competition (2017,18, 19, 20)

INTERCOLLEGIATE ATHLETICS AND LEADERSHIP

NCAA Division III Women's Volleyball University of Mary Washington

- Capital Athletic Conference Rookie of the Year (2017)
- Capital Athletic Conference Championship Appearances (2017,18,19)
- NCAA Tournament Appearance (2018)
- Capital Athletic Conference All Conference Team selection (2019)
- NCAA All District Academic Selection (2019)

University of Mary Washington Athletics Leadership

- Varsity Volleyball Team captain (2019,2020)
- Three-day student athlete leadership academy/program aimed to help athletes set personal standards of excellence and take ownership of intellectual, individual, and interpersonal development.

President of ACS Chapter

- Worked to organize meetings, research presentations, and outreach programs for the chemistry department (2020-2021).

President of Chi Alpha Sigma Honor Society

- Worked closely with athletic administration staff to induct new members, host meetings, and organize society events (2020-2021).