

Zachary Bottorff

972.822.7651

linkedin.com/in/zachary-bottorff

zacharybottorff@gmail.com

Education

Texas A&M University – College Station May 2023
Bachelor of Science in Physics – Computational Science Track; Mathematics minor GPA: 4.0

Honors

Texas A&M University Honors Fellow Departmental Honors
Department of Physics and Astronomy Academic Excellence Award Undergraduate Research Scholar
Fall 2019, Spring 2021, Spring 2022 Dean’s Honor Rolls President’s Endowed Scholar

Technical Skills

C/C++	Fortran (77, 95)	LaTeX
Python	Machine Learning (PyTorch)	ROOT (by CERN)

Research Experience

Undergraduate Research Scholars Program, TAMU

Undergraduate Research Scholar Aug 2022 – May 2023

Mentor: Dr. Alexei Sokolov, Professor of Physics and Astronomy

- Write and publish thesis and give public presentation of research in computational ghost imaging
- Adapt preexisting machine learning code to grayscale images and identify future steps

Department of Physics & Astronomy, TAMU

Student Assistant (30 hours/week) June 2022 – Aug 2022

Mentor: Dr. Alexei Sokolov, Professor of Physics and Astronomy

- Proofread 2 Ph.D. dissertations and studied contemporary research on Raman spectroscopy
- Managed experiments with graduate students and faculty for 2-week Casper Quantum Science Camp
- Taught over 15 younger students concepts such as radio circuits and BB-84 quantum cryptography

Undergraduate Student

Jan 2022 – May 2022

Mentor: Dr. Philip Adsley, Assistant Professor of Physics and Astronomy

- Analyzed data from 5 scattering experiments using CERN’s ROOT software to identify discrepancy

Other Relevant Experience

Discover, Explore, and Enjoy Physics and Engineering (DEEP), TAMU

Undergraduate Student Sept 2021 – May 2022

- Collaborated with 6 undergraduates led by graduate to construct physics demonstrations

Camp Classen, YMCA of Greater Oklahoma City, Davis, OK

Cabin Counselor (seasonal) June 2021 – July 2021

- Supervised up to 14 middle school boys at a time, day and night, for 5 weeks with partner
- Taught hard skills such as archery, soft skills such as conflict resolution, and personal development

Honors Housing Community Student Leaders, LAUNCH, TAMU

Sophomore Advisor Aug 2020 – May 2021

- Facilitated discussion in weekly 1-hour seminar class for 9 to 14 college freshmen
- Created and implemented social and academic events for over 350 freshmen with 26 student leaders
- Served as liaison between freshmen and LAUNCH staff

Consumer Direct Care Network Texas, Allen, TX

Caretaker (as needed) June 2019 – Jan 2021

- Provided respite care and companionship for peer with disability

Volunteering

Pioneers Friday Church, Bryan, TX

Counselor Sept 2021 – April 2023

- Supervise over 70 kids as part of team for 3 hours each week
- Guide spiritual discussions and present curriculum to about 4 boys in 6th – 11th grade

Brazos Valley Food Bank, Bryan, TX

Volunteer Sept 2021 – Nov 2021

- Inspected and organized food donations with team for 4 hours per month

Activities

University Honors Program, TAMU, Undergraduate Honors Student Aug 2019 – May 2023

Society of Physics Students, TAMU, Member Nov 2021 – Dec 2022

Impact Retreat, TAMU, Counselor Feb 2020 – Sept 2020