

Education

Bachelors of Science in Data Analytics College of Arts and Sciences - Honors The Ohio State University	Aug 2020 - May 2024
Masters of Science in Computer Science School of Computing University of St. Andrews	Sept 2024- Sept 2025

Research

Undergraduate Researcher Lawrence Berkeley National Laboratory Berkeley, California	Oct 2022 - June 2024
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- Worked on the calibration and filter optimization system for the Gamma Ray Energy Tracking Array (GRETA) which will be used by nuclear physicists at Facility for Rare Isotope Beams (FRIB) to do gamma-ray spectroscopy
- Participated in Summer Undergraduate Laboratory Internship (SULI) to build the optimization pipeline for GRETA's detectors
- Researched the parameter space for detector calibration along with a variety of optimization methods for filter shaping parameters

Research Intern Michael E. DeBakey VA Medical Center Houston, Texas	June - August 2021
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- Used Python to clean streptococcus data for feature selection and use in classification algorithms
- Used various out-of-the-box machine learning algorithms from the SciPy library to build a streptococcus classifier trained with the previously cleaned textual data
- Contributed to the overall project of automating the classification of clinical records for the VA hospital system

Work

Software Intern Dell Technologies Austin, Texas	June - August 2022
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- Built an automated service request classifier that processed over 1.5 million transcript entries to pinpoint areas of product improvement for quality engineers
- Presented to a panel of managers and vice presidents on the new insights this classifier generated and future usage for Dell

Julia Dreiling

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Poster Presentations

Presented a poster on Gamma-Ray Energy Tracking Array (GRETA) Filter Parameter Optimization and Calibration at the CEU (Conference Experience for Undergraduates) poster session at 2023 Fall Meeting of the Division of Nuclear Physics of the American Physical Society and the Physical Society of Japan, in Waikoloa, Hawaii on November 29th, 2023

Presented a poster on Gamma-Ray Energy Tracking Array (GRETA) Filter Parameter Optimization and Calibration at the SULI Summer 2023 Virtual Poster Presentation on August 9th, 2023.

Technical Skills

Proficient in C, C++, SQL, Java, Python, R, x86-64 assembly language, and MATLAB
Proficient with Anaconda, Tableau, Adobe Creative Cloud, Microsoft Office, G Suite, and OBS

Languages

Fluent: English
Proficient: Chinese

References

Heather Crawford, Staff Scientist
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