Alia Valentine

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EDUCATION

Bachelor of Science in Mathematics and Physics

East Lansing, MI

Minor in Computational Mathematics, Science, and Engineering (CMSE) $\,$

Fall 2020-Current

Michigan State University

Research Experience

Summer of Undergraduate Applied Math Institute REU

Pittsburgh, PA

Carnegie Mellon University

Summer 2023

- Work with Bayesian Parameter Estimation

Research Assistant

East Lansing, MI

MSU Department of Physics and Astronomy's Physics Education Research Lab

Fall 2021 - Summer 2022

- Integrating Computation in Science across Michigan

Research Assistant

East Lansing, MI

MSU Department of Physics and Astronomy's Facility for Rare Isotope Beams

Spring 2022

- Contributed to development of beam optimization code for the Separator for Capture Reactions

TEACHING EXPERIENCE

• Machine Learning Short Course

Summer 2023

Co-taught with Professor Danny Caballero

Spring 2023, Spring 2022

Physics for Scientists and Engineers II (PHY 184)

Fall 2022

• Curriculum Development for studio physics classes (PHY 173/PHY 174)

Improved accesibility of course materials

Physics for Scientists and Engineers II (PHY 184) (curriculum development)

Summer 2022

• Physics for Scientists and Engineers I (PHY 183)

Fall 2021, Spring 2021

AWARDS

• McCartney Scholarship Math Award

Spring 2023

Extracurricular Activities

• Vice President of Michigan State University Society of Physics Students General member of SPS since 2021.

 $Summer\ 2023-Current$

• Officer of Women and Minorities in the Physical Sciences graduate organization Mentoring Co-Chair. 2022-Current

• Officer of Science Theater

2022-Current

 $Demonstration\ maintenance\ coordinator.\ Science\ the ater\ routinely\ performs\ science\ demonstrations\ for\ kids\ of\ all\ ages.$

• Member of Math Club 2022–Current

• Chaperone of Physics of Atomic Nuelei (PAN) summer camp

Summer 2022, Summer 2023

PAN is a free, week-long summer camp about nuclear astrophysics for High-School students