

ALICIA MAND

amand002@odu.edu

<http://sites.wp.odu.edu/amand>

EDUCATION

Old Dominion University

2018-2023

B.S. Astrophysics and Computer Engineering

Overall GPA: 3.81

Major GPA: 3.83

EXPERIENCE

Undergraduate Teaching Fellow

August 2022 - Present

Old Dominion University

Norfolk, VA

- Graded assignments and held office hours for introductory astronomy courses

Missing Mass Group

January 2021 - Present

Old Dominion University

Norfolk, VA

- Mentor: Dr. Balsa Terzic, Department of Physics, Old Dominion University
- Created automated web scraping tool for CalTech's NASA/IPAC Extragalactic Database (NED)
- Development of nonlinear models to explore the consequences of self-interaction in spiral galaxies

Newport News Shipbuilding

September 2020 - February 2023

Computer Engineering Co-op

Newport News, VA

- Software configuration management
- Software development for onboard automated ship systems

Electrons for Neutrinos Collaboration

February 2020 - Present

Old Dominion University/Thomas Jefferson National Accelerator Facility

Norfolk, VA

- Mentor: Dr. Lawrence Weinstein, Department of Physics, Old Dominion University
- Performed analysis on TJNAF electron beam data using CERN's ROOT library
- Exploitation of electron-neutron interactions to improve current phenomenological models of neutrino interactions for modern experiments

Old Dominion University Planetarium

May 2019 - Present

Student Worker

Norfolk, VA

- Gave shows, oversaw special events and ticketing
- Performed outreach activities for local school groups and girl scout troops

POSTERS, TALKS, AND CONFERENCES

2023 APS March Meeting

March 2023

Probing NASA's Extragalactic Database for the Missing Mass Profile

Poster

Fall Meeting of the APS Division of Nuclear Physics

October 2021, 2022

Electrons for Neutrinos: Analysis of the $1p1\pi$ Channel

Talk

Undergraduate Physics Congressional (PhysCon)

October 2019, 2022

Rocket Propulsion, Probing NASA's Extragalactic Database for the Missing Mass Profile

Poster

Conference for Undergraduate Women in Physics (CuWiP)

January 2021

Electrons for Neutrinos: Lepton Energy Reconstruction in the Resonance Excitation Region

Talk

ORGANIZATIONS AND VOLUNTEERING

Tau Beta Pi

2022 - Present

President

Norfolk, VA

- Engineering Honor Society

The Society of Physics Students

2019 - Present

President

Norfolk, VA

- Organized outreach and professional development events
- Awardee of SPS Outstanding Chapter Award
- Awardee of 2021 SPS National Chapter Research Award

Rotaract Club

Treasurer

2019 - Present

Norfolk, VA

Global M.A.N.E.

Student Mentor/Tutor

Fall 2019

Lambert's Point Community Center, Norfolk, VA

- Tutored low-income and at-risk elementary students
- Mentor of the Year Award

AWARDS

APS Future of Physics Days Travel Award

2023

American Physical Society

\$500

ODU SEES Travel Grant

2023

Old Dominion University

\$500

SPS Travel Award

2023

Society of Physics Students

\$300

Conference Experience for Undergraduates Travel and Lodging Award

2022

Conference Experience for Undergraduates

\$550

JSA Minority/Female Undergraduate Research Assistantship

2022

Thomas Jefferson National Laboratory

\$7,500

Virginia Space Grant Consortium Scholarship

2022

Virginia Space Grant Consortium

\$8,500

College of Sciences General Scholarship

2021

Old Dominion University

\$2,099

National Research Grant

2021

Society of Physics Students

\$2,000

Pathway Retention Award

2019-2021

Old Dominion University

Full Meal-Plan Waiver with Book Stipend