

ABBY BAULT

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University of California, Irvine

Department of Physics and Astronomy, Irvine, CA 92697

RESEARCH INTERESTS

I find all aspects of astrophysics fascinating. I am also interested (broadly) in cosmology and machine learning.

EDUCATION

University of California, Irvine *September 2018 - Present*

Department of Physics and Astronomy

Ph.D. in Physics

expected 2024

M.S in Physics

awarded Dec 2020

Wayne State University

August 2014 - May 2018

B.S. in Physics

Concentration: Astrophysics

Macomb Community College

May 2015 - December 2015

Guest Student

RESEARCH EXPERIENCE

University of California, Irvine

April 2019 - Present

Graduate Research Assistant

I am currently working on simulating satellite trails in the Large Synoptic Survey Telescope (LSST) exposure images. I am also working on the Dark Energy Spectroscopic Instrument (DESI)

University of Pittsburgh

Summer 2017

Summer Undergraduate Research Fellow

Under Dr. Jeff Newman, I worked to determine the color of the Milky Way galaxy using data from Sloan Digital Sky Survey. I was given a predetermined list of galaxies that were analogous to the Milky Way in terms of star formation rate and total mass in stars. My job was to narrow this list further by including cuts on galaxy morphology.

WORK EXPERIENCE

University of California, Irvine

April 2019 - Present

Graduate Research Assistant

I work with Dr. David Kirkby studying observational cosmology. I am a member of the LSST Dark Energy Science Collaboration (DESC) as well as the Dark Energy Spectroscopic Instrument (DESI).

University of California, Irvine

September 2018 - March 2019

Graduate Teaching Assistant

I was a TA for the following classes and quarters:

Winter 2019: Physics 7C - Classical Physics | Instructor: Arnold Guerra

Fall 2018: Physics 7C - Classical Physics | Instructor: Andrew Lankford

WORK EXPERIENCE CTD.

Wayne State University Planetarium

August 2016 - May 2018

Presenter

At the planetarium I presented shows to the introductory astronomy students as well as presented shows to the public on Friday nights when needed. These shows consisted of a star talk typically about what is currently viewable in Detroit's sky followed by a short movie.

Galco Industrial Electronics

December 2014 - July 2018

Marketing Administrative Assistant

At Galco I was responsible for uploading stock images to the website as well as weights and dimensions for product sold. I also worked on uploading documents such as specification sheets and catalog pages to the website for customers to view.

Wayne State University

August 2016 - September 2017

Peer Mentor

As a peer mentor I attended lectures and discussion sections of the introductory calculus based physics courses to help students with any issues they were having with the class. These issues ranged from questions on homework assignments, questions about the lectures, or just questions about physics at Wayne State in general.

GRADUATE COURSEWORK

Core Courses	Classical Mechanics, Quantum Mechanics 1, Quantum Mechanics 2, Statistical Mechanics, Mathematical Physics, Electromagnetic Theory 1
Electives	Radiative Processes in Astrophysics, Galactic Astrophysics, Stellar Astrophysics, Machine Learning, Extragalactic Astrophysics, Astrophysics Fundamentals, Electronics for Scientists*

*-To be completed by Mar 2021

EXTRACURRICULARS

UCI Grad Slam 2021 Semi-Finalist

UCI Womxn in Physics and Astronomy (WiPA) Treasurer

UCI Physics and Astronomy Community Excellence (PACE) Mentor

UCI Physics and Astronomy Blog Team Member - Student Spotlight and Newsletter Project Manager

AWARDS

Summer Undergraduate Research Fellowship - University of Pittsburgh

Maria Mitchell Endowed Scholarship - Wayne State University

Physics and Astronomy Undergraduate Scholarship - Wayne State University

Wayne State Promise Award - Wayne State University

WSU Board of Governors Grant - Wayne State University

Presidential Scholarship - Wayne State University

TECHNICAL STRENGTHS

Programming	Python, HTML
Software	LaTeX, MS Word, MS Excel, MS Powerpoint
Editing	Adobe Photoshop
Languages	Spanish (Basic words and phrases only)