

# ABBY BAULT

(586) 556-2417 ♦ abault@uci.edu ♦ theabbybault.github.io

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*

Ph.D. in Physics

Department of Physics and Astronomy

**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

---

<b>Core Courses</b>	Classical Mechanics, Quantum Mechanics 1, Quantum Mechanics 2, Statistical Mechanics, Mathematical Physics, Electromagnetic Theory 1
<b>Electives</b>	Radiative Processes in Astrophysics, Galactic Astrophysics, Stellar Astrophysics*, Machine Learning*, Extragalactic Astrophysics*, Cosmology*

\*-To be completed by Jun 2020

## 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

## EXTRACURRICULARS

---

Treasurer of Women in Physics and Astronomy (WiPA) at UC Irvine  
Co-Founder of the Build Your Own (BYO) Club  
WiPA Grad-Undergrad Mentor

## TECHNICAL STRENGTHS

---

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