

# Allison Acosta

PHD STUDENT · PHYSICS AND ASTRONOMY

Washington State University, 370 Lighty Student Services Bldg, Pullman, WA 99164

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## Education

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### Washington State University

PHD PHYSICS

- Advisor: Dr. Vivienne Baldassare

Pullman, WA

August 2021 - present

### Embry-Riddle Aeronautical University

BS ASTRONOMY AND ASTROPHYSICS, COMPUTATIONAL MATHEMATICS (DOUBLE MAJOR)

- Advisor: Dr. Jason Aufdenberg

Daytona Beach, FL

August 2016 - May 2020

## Professional Experience

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- 2022-2023 **Graduate Teaching Assistant**, Dept. of Physics and Astronomy, Washington State University
- 2021-2022 **Graduate Research Assistant**, Dept. of Physics and Astronomy, Washington State University
- 2020 **OneSky Capstone Collaborator**, Dept. of Mathematics, Embry-Riddle Aeronautical University
- 2020 **Undergraduate Teaching Assistant**, Dept. of Physical Sciences, Embry-Riddle Aeronautical University
- 2019-2020 **Undergraduate Research Assistant**, Dept. of Physical Sciences, Embry-Riddle Aeronautical University

## Awards & Fellowships

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- 2023 **William J. Shelton Scholarship**, Washington State University
- 2023 **NASA Space Grant Fellowship**, Washington State University
- 2021 **Graduate Research Assistantship for Diverse Scholars**, Washington State University
- 2021 **J. Walter Hendrix Graduate Recruitment Fellowship**, Washington State University
- 2019 **Summer Undergraduate Research Fellow**, Embry-Riddle Aeronautical University

## Teaching Experience

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- 2022-2023 **Graduate Teaching Assistant**, Taught and ran weekly labs for Physics 1, graded all associated lab reports, graded homework and activities for undergraduate astronomy courses, held weekly tutoring for Physics 1 courses *WSU*
- 2020 **Undergraduate Teaching Assistant**, Taught supplementary study sessions for the quantum mechanics course, graded homework and quizzes *ERAU*
- 2017-2019 **Teacher**, Taught K-12 summer science workshops, taught topics including physics, chemistry, planetary science, electromagnetism, coding, and color theory, responsible for maintenance of equipment *Mad Science*

## Outreach & Professional Development

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### SERVICE AND OUTREACH

- 2022 **Graduate School Panel**, Provided current ERAU undergraduate students with information regarding graduate schools *ERAU*
- 2017-2019 **Science Olympiad**, Set up and ran several experiments for students from local middle and high schools to participate and compete in *ERAU*
- 2018 **Women in Science Embry-Riddle (WiSER)**, Volunteer tour guide, provided prospective students with information regarding ERAU's Astronomy and Astrophysics undergraduate program *ERAU*

### PROJECTS & DEVELOPMENT

- 2022 **La Serena School of Data Science Project**, Used machine learning to model and analyze LiDAR data, responsible for completing all related workshops, generated 3-D models of large data sets, used the machine learning analysis to categorize all data *WSU, Universidad de La Serena*
- 2021-2023 **Graduate Research Project**, Analyzed photometry data for tidal disruption event AT2020opy, responsible for modeling data and presenting findings, generated scientific images of light curves for the transient, developed spectral energy distribution models for the host galaxy *WSU*
- 2020 **Observational Astronomy Project**, Observed irregular dwarf galaxy I Zwicky 18 using the ERAU 1-m Ritchey-Chretien telescope, responsible for telescope operations during other students' observations, generated scientific images of I Zwicky 18 using AstroImageJ, provided an analysis of the star-forming regions within the galaxy *ERAU*
- 2020 **SARA Kitt Peak Observations**, Observed various objects to measure and record H-alpha emissions, produced flat, bias, and science images using the SARA-KP telescope, resulted in scientific images detailing H-alpha emissions *ERAU*
- 2019 **Undergraduate Research Project**, Generated chemical abundance models for Sirius A, responsible for maintenance of research equipment, collaborated with others to complete spectral analyses of each individual element *ERAU*
- 2019 **American Astronomical Society Meeting (AAS)**, Presented an electronic poster of my undergraduate project *ERAU*

### SOFTWARE EXPERIENCE

- 2016-2022 **Programming**, Python, MATLAB, LaTeX, IDL *WSU, ERAU*
- 2019 **Modeling**, CodeV *ERAU*