

Jay Marie Baptista

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SUMMARY

I am a first-generation college student and astrophysics undergraduate who is interested in cosmological and extragalactic research. I am interested in pursuing a career in science communication and teaching astronomy in the long-term.

EDUCATION

Yale University, New Haven, CT — 2023, B.S. Astrophysics, 3.9 GPA
Lahainaluna High School, Lahaina, HI — 2019, Valedictorian, 4.2 GPA, Academic Honors

EXPERIENCE/WORK

Galactic Astrophysics Research (M. Geha Lab) — 2020-2021

Researched methods of determining star memberships within various ultra-faint dwarf galaxies. I investigated different statistical methods utilizing stellar isochrones, half-light radii, radial velocity dispersions, and elemental line strengths from spectra. Adapted a fork of the Marz program to determine redshifts for Deep Extragalactic Imaging Multi-Object Spectrograph data.

Undergraduate Teaching Assistant (ASTR160) — 2021-Present

Assess and support students in their understanding of introductory materials related to orbital mechanics, rocket science, exoplanets, and black holes. Collaborated in developing a curriculum that helps build scientific intuitions for humanities and non-physical science majors.

Library Service Assistant (Sterling Memorial Library) — 2019-2020

Categorize incoming book returns through the Library of Congress organization system, re-shelve books, and assist in work at the circulation desk. Trained in accuracy checking, filing, and shelf-reading, as well as answering inquiries in-person or over the phone.

SKILLS

Experienced with word-processing and spreadsheeting applications, familiar with programming in Java, C#, Python (OpenCV, astropy, emcee), and Javascript (Node.js + front-end development). I am experienced with writing scientific proposals such as telescope allocation proposals (NOAO style) and science communication. I have lengthy experience performing data reductions on CCD images and spectra. I am able to speak intermediate French and intermediate Korean.

EXTRACURRICULARS

- **Yale Rotaract (Member, Vice President) — 2019-Present**
- **Yale Queer + Asian (Board Member) — 2020-Present**
- **Yale Hawai'i Institute (Co-President) — 2019-Present**
- **Yale Splash (Teacher, Rohingya Refugee Crisis and Introduction to Stellar Astronomy) — 2019-Present**

FELLOWSHIPS AWARDED

- Science, Technology, and Research Scholar Summer 2020 — *Star Membership Probabilities of Ultra-faint Dwarf Galaxies*
- University of Hawai'i Institute for Astronomy Internship 2021 — TBD