Evan Imata

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EDUCATION

University of California, Berkeley Aug 2021 - May 2023
Bachelor of Arts in Astrophysics with Honors
GPA 3.57

University of Hawaii at Manoa Aug 2019 - May 2021
Non-degree seeking
GPA 3.67

RESEARCH EXPERIENCE

Nebulous Genetic Algorithm - **Ohio State University** Apr 2024 - Present
Advisor: Dr. Julie Rolla

- Developed spacecraft representations and Python software for a genetic algorithm
- Researched computational geometry methods and modeled astronomy instrumentation in Pymeshlab
- Quantified atmospheric drag effects on spacecraft designs
- Modeled antenna designs in XFdtd and Blender for radio astronomy

Student Data Analyst - **Space Sciences Laboratory** May 2022 - June 2023
Supervisor: Dr. Andrew Poppe

- Synthesized an optical image dataset for the NASA Planetary Data System
- Analyzed coronal mass ejection data from the Advanced Composition Explorer and Geotail missions with orbital simulations
- Conducted research on solar particle interactions with interplanetary dust

Exoplanet Observation - **ULAB Undergraduate Project** Sep 2021 - May 2022
Supervisor: Derek Kaplan

- Operated and collected optical images from the Leuschner Observatory
- Performed exoplanet transit analysis on astronomy data using Python and Excel
- Analyzed the MIT TESS dataset to identify exoplanet candidates
- Co-authored research proposals and presentations

Planting Trees Project - **UH Manoa Math Department** Sep 2020 - May 2021
Supervisor: Dr. Monique Chyba

- Independently researched the impacts of climate change on Hawaiian land
- Compiled Hawai'i rainfall data and groundwater supply over recent decades, as well as future climate models

PROFESSIONAL EXPERIENCE

Code Coach - **The Coder School, Berkeley** Sep 2021 - Present

- Taught coding concepts to K-12 students in Python, Java, and Scratch
- Programmed object-oriented games and full-stack web applications

Systems Engineer - **Raytheon Technologies** Oct 2023 - Jun 2025

- Developed Python, Matlab, Fortran, and Linux-based tools to analyze radar performance metrics from live tests and simulated scenarios
- Presented radar system analytics to stakeholders and customers
- Conducted radar instrumentation tests in a laboratory environment

Student Assistant - **University of Hawaii at Manoa** Aug 2019 - May 2020

- Guided students to university counseling resources and job opportunities
- Authored a bi-weekly newsletter noting key academic events in the department
- Maintained a hydroponic system

COMMUNITY SERVICE & LEADERSHIP EXPERIENCE

Resident Assistant - **UC Berkeley Residential Life** Jul 2022 - May 2023

- Managed 50 residents in undergraduate student housing, ensured all conduct adhered to Residential Life policies
- Planned and implemented activities to build community and promote academic wellness of students, in accordance with the University's mission of diversity and equity pertaining to race, religion, and gender
- Responded to on-campus emergencies and ensured student safety

NASA Social - **Kennedy Space Center** Aug 2022

- Produced social media and music content promoting the Artemis I rocket launch as a selected member of NASA social

Outreach Learning Assistant - **UH Manoa Math Department** Sep 2020 - May 2021

- Spearheaded a virtual STEM outreach tutoring program for homeless K-12 students
- Mentored students from underrepresented communities in math, coding, and English
- Coordinated activities and workshops at multiple Hawaiian homeless shelters

Learning Assistant - **UH Manoa Math Department** Sep 2020 - May 2021

- Mentored undergraduate peers in vector calculus
- Hosted and guided review sessions for students

PUBLICATIONS

- A. R. Poppe, P. S. Szabo, E. R. Imata, L. P. Keller, R. Christoffersen. "Solar energetic particle track-production rates at 1 AU: Comparing in situ particle fluxes with lunar sample-derived track densities." The Astrophysical Journal Letters, vol. 958, no. 2, 29 Nov. 2023, https://doi.org/10.3847/2041-8213/ad0cf6.

PRESENTATIONS

Evolving 3D Antenna Models Via Genetic Algorithms
American Geophysical Union 2025 Conference

- Demonstrate the ability of a genetic algorithm to optimize radio antenna models

Observing and Obtaining a Light Curve from a Potential Transiting Exoplanet
ULAB Symposium, 2021

- Presented optical astronomy data and analysis for exoplanet candidates

AWARDS & RECOGNITIONS

- Graduation in Astrophysics with Honors (2023)
- USRA 2021 Distinguished Undergraduate Award Honorable Mention
- University of Hawaii at Manoa Academic Merit Scholarship (2019)

RELEVANT COURSEWORK

Planetary Astrophysics, Atmospheric Physics and Dynamics, Relativistic Astrophysics and Cosmology, Statistical and Thermal Physics, Quantum Mechanics, Astronomy Data Science Laboratory, Computer Simulations in Jupyter Notebooks, Structure and Interpretation of Computer Programs, Foundation of Astrophysics

SKILLS

- **Programming Languages:** Python, Java, C, Matlab, Fortran, IDL
- **3-D Modeling:** Pymeshlab, XFdtd, Blender
- **Data Science:** Tensorflow, SQL, ADQL, Matplotlib, NumPy, Pandas, Astropy, PyMC
- **Web Development:** HTML, CSS, JavaScript, Python Flask
- **Microsoft Suite:** Excel, PowerPoint, Word, OneNote
- **Other Technical Skills:** Latex, Linux, Bash
- **Language Skills**: English, elementary Japanese