Jude A. Gussman

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EDUCATION

Indiana University, Bloomington, Indiana   May 2022
Bachelor of Science, GPA, 3.73/4.00
Major: Computer Science (Data Science, Artificial Intelligence), Mathematics, and Astrophysics
- Lions Club Memorial Scholarship, exemplary community service and academic excellence
- Polish Heritage Scholarship, showed resolute determination for achieving academic goals
- Frank & Margaret Edmondson Prize for Teaching, outstanding teaching and leadership skills demonstrated by an undergraduate

SKILLS

Programming Languages: Python 3, Machine Learning, Java, Sequence Query Language (SQL)
Astronomy Software: IRAF, MOOG

ACTIVITIES

Golden Living Center, Bloomington, Indiana   December 2018-February 2020
Volunteer in Service Group NAME (Never Alone: Ministry to the Elderly)
- Planned two hours worth of different games to play and topics to discuss with the nursing home residents

Department of Astronomy, Bloomington, Indiana   August 2017-Present
Astronomy Club President & Vice-President & Member
- Collaborate with graduate and undergraduate astronomy students and astronomy enthusiasts in group discussions about mainstream astronomical topics and interests of other club members

Kirkwood Observatory Volunteer   January 2019-February 2020
- Engage with members of the public about astronomy every Wednesday night during which they can look through the Kirkwood refractor telescope
- Supervise the astronomy clubs participation in giving back to the public by teaching new members how to operate Indiana University's solar observatory for the public

Computational Astrophysics Member   Spring 2020-Present
- Contribute in weekly meetings that develops the group's astronomical computational techniques

EXPERIENCE

Indiana University Department of Computer Science, Bloomington, Indiana   August 2019-Present
Teaching Assistant (TA) for Introduction to Python Course & TA for Data Structures and Algorithms Course
- Galvanize the students' desire to learn Python & Java during our informative office hours and engaging labs
- Developed creative labs that serve to help students retain knowledge and also foster a dynamic mindset

Indiana University Department of Astronomy, Bloomington, Indiana   August 2018-Present
Undergraduate Researcher
- Research binary star systems' spectra to uncover a possible correlation between a star's rotational velocity and its lithium abundance
- Created a python program that took observational data and synthetic a combination python algorithm that found the best fit out of millions of created simulations of stars
- Optimized the runtime of my python program that computes millions of different combinations of stellar spectrums.
- Published research in the American Astronomical Society's Research Notes

Nova Search Project Supervisor   May 2019-August 2019
- Mentored an incoming undergraduate student on different image processing techniques that were circtical to the success of project
- Reduced hundreds of FITS images using Pyraf programs I created for the Nova Search project

Astronomy Tutor   January 2020-May 2020
- Headed the IU's Astronomy Department's tutoring center which involved coordinating schedules, advertising, and finding the most qualified tutors

Undergraduate Mentor   August 2020-Present
- Advised an undergraduate Astronomy student in developing computational experience along with their analytical abilities