Ha Do
773-757-8903
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EDUCATION

The University of Chicago, Chicago, IL
Bachelor of Science in Astrophysics & Bachelor of Art in Race, Diaspora, and Indigeneity
Expected graduation: May 2026
Cumulative GPA: 3.97/4.00

Relevant Coursework
General Physics, Mathematical Methods for the Physical Sciences; Python Programming with Applications to Astrophysics; Computational Techniques in Astrophysics, Observational Techniques in Astrophysics, Undergraduate Research Seminar

SCHOLARSHIPS, AWARDS, & HONORS

Odyssey Scholar | Davis UWC Scholar 2022-2026
Dean's list 2022-2023, 2023-2024 | Robert Maynard Hutchins Scholar 2023-2024
Quad Undergraduate Research Scholar 2024

RESEARCH EXPERIENCE

The University of Chicago, Investigating the Jet Stream Spur Using the DECam MAGIC Survey
Undergraduate Researcher, December 2023 – Present
Advisors: Anirudh Chiti, Alexander Ji
Conducted preliminary analysis on various objects including globular clusters, dwarf galaxies, and stellar streams in the DECam MAGIC catalogs by writing Python programmes to construct color-magnitude, spatial distribution, and proper motion diagrams; metallicity distribution functions; and photometric metallicity contour plots. Modified external Python script to convert Jet stream coordinates to alternative coordinate system for ease of analysis.

The University of Chicago, Yerkes Plates Project
Undergraduate Researcher, October 2022 – Present
Advisors: Richard Kron
Conducted a spectroscopic study on the 1928-1930 eclipse of binary star system 7 ε Aurigae through digitizing and analyzing historical glass spectrograms and photographic plates from the Yerkes Observatory. Performed literature review of historical and contemporary literature relevant to the study of ε Aurigae and glass plates digitisation. Developed, troubleshooted, and executed methods for economic and efficient digitisation of glass plates, using an Epson flat-bed scanner and a Canon DSLR. Analyzed scientific data from said digitisations, including spectra calibration, photometric calibration, and astrometric calibration using DS9, TOPCAT, and Python script.

TEACHING EXPERIENCE

The University of Chicago, ASTR 11901 Physics of Stars: An Introduction
Teaching Assistant, July 2023 & July 2024
Developed syllabus with primary instructors serving 23 international high school students. Graded and corrected coursework comprising Colaboratory notebooks, laboratory reports, problem sets, and research presentations. Provided classroom and laboratory support and guided students through homework sessions. Supervised students during field trip at the Yerkes Observatory and directly instructed students on a variety of hands-on activities including using the 24-inch refracting telescope, using Dobsonian and solar telescopes, pinhole camera photography, making contact prints, and developing photos using traditional darkroom methods

PRESENTATIONS & PUBLICATIONS

244th Meeting of the American Astronomical Society, Madison, WI, June 2024. Daniel Babnigg, Ha Do, Nicole Millan Ortiz, Sandra Schloen, Richard Kron. "Edwin Hubble's Doctoral Thesis: Using OCHRE to Associate Interdisciplinary Materials" (iPoster).

243rd Meeting of the American Astronomical Society, New Orleans, LA, January 2024. Isaiah Escapa, Daniel Babnigg, Ha Do, Rachel Kovach-Fuentes, Harper Learmonth, Nicole Millan Ortiz, Ava Trent, Richard Kron. "Digitization and Analysis of Spectrograms of Epsilon Aurigae from the 1929 Eclipse" (iPoster).

Biennial History of Astronomy Workshops, The University of Notre Dame, Notre Dame, IN, June 2023. Babnigg, Daniel; Do, Ha; Kovach-Fuentes, Rachel. "Digitization and Analysis of a Yerkes Observatory Spectroscopic Glass Plate" (paper session).

OTHER EMPLOYMENT, ENGAGEMENT, AND STUDENT LIFE

Center for Identity + Inclusion, Emerging Minds Project Programme Facilitator, September 2023 – Present Planned, presented, and facilitated biweekly panels and group discussions for audiences of 10-30 people on the intersection of race and other social issues/identities, including race + religion, race + indigeneity, and race + queerness.

Department of Physics Office Assistant, January 2022 – Present Designed internal & external communications materials via Canva. Supported staff, graduate, and undergraduate events and recruitment campaigns.

Dougan-Niklason House – Residential dorm Co-president, 2023 – 2024 Planned and hosted weekly community events for residential house of over 100 members including sports, restaurant, and museum outings, as well as community outreach efforts serving local food banks. Fundraised over $1000 for aforementioned activities.

MEMBERSHIPS

American Physical Society
University of Chicago Society of Women in Physics
University of Chicago Vietnamese Students Association

TECHNICAL SKILLS

Coding languages: Python, LaTeX
Computational techniques: N-body simulation, Optimisation, Monte Carlo methods, Artificial neural networks, Convolutional neural networks,
Astrophysics software: SAO DS9, TOPCAT, Source Extractor, Astrometry.net

LANGUAGES

English: Native/Bilingual fluency
Vietnamese: Native/Bilingual fluency
French: Beginner proficiency