



Natalie Lam

📍 UCLA

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🎓 EDUCATION

University of California Los Angeles,
Ph.D. Astronomy & Astrophysics (intended)
Sep 2023 – present

University of California San Diego,
BS Physics w/ Specialization in Astrophysics
Sep 2019 – Jun 2023
Minoring in Mechanical Engineering.
Summa Cum Laude, Highest Distinction
GPA 4.0/4.0

📁 PROFESSIONAL EXPERIENCE

Research on Active Galactic Nuclei Outflows, Alison Coil
Sep 2022 – Aug 2023

As part of the Department of Physics Honors Program. Performed simultaneous fitting on integral field spectrograph data from the KCWI. Created maps of AGN-driven outflow morphology and kinematics. Determined mass and energy flow rates and compared with quenching models.

Research in X-LAB, Alex Frañó
Jun 2022 – Oct 2022

Devised and constructed an experiment to study the dynamic structure of hydrogel using coherent laser light as part of the Undergraduate Summer Research Award. Presented poster to peers, faculty, and representatives from General Atomics.

Research in Cool Star Lab, Adam Burgasser
Oct 2021 – Apr 2022

Performed reductions and analysis of stellar spectra from NASA's SpeX Telescope. Characterized astronomical objects and sources. Analyzed Python code on data processing.

Supplemental Instruction Leader, UC San Diego
Mar 2021 – Jun 2022

Led Physics courses in Classical Mechanics, Fluid Mechanics, Thermodynamics, Optics, Special Relativity, and Quantum Mechanics. Facilitated student learning by designing and hosting weekly study group sessions.

🏢 LEADERSHIP

Society of Physics Students at UC San Diego, President

Mar 2022 – Mar 2023

SPS at UC San Diego is the operating Physics Undergraduate Council.

Led the club and corresponded with faculty and departmental staff. Helped organize the 2022 SPS Zone 18 Meeting of Californian chapters. Hosted events on diversity, equity, and inclusion, and workshops on professional development. Networked with other SPS chapters at SDSU and USD.

Society of Physics Students at UC San Diego, Media Chair

Apr 2020 – Mar 2022

Led the Media Team in promoting our organization's events, conducting outreach within the school, and cultivating our online presence through emails, classroom visits, flyering, media takeovers, and collabs.

Undergraduate Women in Physics / Marginalized Identities in Physics, Advertising Officer

2020 – 2021

Promoted the organization's events through emails and mailing lists, as well as visiting classrooms to advertise the organization.

🏆 AWARDS

Eugene V. Cota-Robles Fellowship, UCLA
Mar 2023

John Holmes Malmberg Prize, Department of Physics, UC San Diego
Jun 2023

Mentored two new leaders by providing advice, observing sessions, conducting debriefs, and hosting trainings.

Research on Dark Matter, Tongyan Lin

Jul 2021 – Sep 2021

Presented and engaged in group discussions on the Direct Detection of Dark Matter. Reproduced theoretical calculations and plots on dark matter scattering rates and velocity distributions.

Provost Scholar,

Eleanor Roosevelt College, UC San Diego

Jun 2023

Highest GPA in Physical Sciences

Dean's Undergraduate Award for Excellence,

School of Physical Sciences, UC San Diego

Jan 2023

2022 Richard L. and Fern W. Erion & Laidlaw-Erion Scholarship, UC San Diego

2022 Klara D. Eckart Scholarship,

UC San Diego

2022 LLNL-AIP Leadership Scholarship,

Society of Physics Students, American Institute of Physics

2022 Undergraduate Summer Research Award, UC San Diego

2022 Triton Research and Experiential Learning Scholars (TRELS), UC San Diego

LANGUAGES

English	● ● ● ● ●
Cantonese	● ● ● ● ●
Mandarin	● ● ● ● ●

SKILLS

Creative, Innovative, Hardworking

Python, LATEX, Mathematica, UNIX

Electronics and circuits, optics

Leadership, mentorship, outreach

Graphic design, video editing

Marketing, promotion

INTERESTS

Volunteering and Mentoring

Helped out with physics demonstrations at the Southeast Science and Art Expos that bring STEAM to predominantly minority neighborhoods. Volunteered at a STEM day camp for girls in high school and shared my experiences on a panel. Mentored and advised lowerclassmen and prospective physics students.

Arts

Music:

Choir singer of 15 years. Performed classical, jazz, and experimental pieces in Chamber Singers at UC San Diego. Toured Estonia, and Finland for the Europa Cantat Festival as part of the Hong Kong Children's Choir. ABRSM Piano Grade 5. Self-teaching violin, guitar, and ukulele.

Visual Arts:

Took art lessons since age 5. Experimented with different art forms such as oil painting, printmaking, carving, sketching, etc. Passion for graphic design.