

Hang Su

hsu1@unh.newhaven.edu +1 (860)-501-5562

Education

University of New Haven

West Haven, CT

- **Bachelor of Science, Mathematics, Minor in Physics** GPA: 4.00/4.00
- Dean's List Fall 2019 – Spring 2021, Alpha Lambda Delta Honor Society May 2023
- Scholarships: University of New Haven Presidential Scholarship & The Hector and Wanda Levesque Memorial Scholarship Award for Science

Research

MIT Summer Research Program (MSRP)

Massachusetts Institute of Technology, MA

- Project: Using machine learning to catalog accreted stars in Gaia ESA DR3 survey. June 2022 – Present
- Mentors: Lina Necib Ph.D., Tri Nguyen, Nora Shipp, MIT Kavli Institute for Astrophysics and Space Research

A Functional Equation Motivated by the Tangent Function

University of New Haven, CT

- Deriving the 3-dimensional solutions to a functional equation. March 2022 – Present
- Mentor: Ramesh Sharma, Ph.D., Department of Mathematics and Physics

Vector Rotating Oscillons

Rice University, TX

- Building Python simulations of oscillon lifetime and reviewing relevant literature. November 2021 – Present
- Mentor: Hong-Yi Zhang, Ph.D. candidate in cosmology at Rice University.

Atmospheric and Computational Chemistry

University of New Haven, CT & Duke Kunshan University, China

December 2021 – Present

- Running the ABCluster and other computational chemistry software to find the optimal geometries of molecular clusters.
- Mentors: Dequan Xiao, Ph.D., Chong Qiu, Ph.D., Chemistry and Chemical Engineering Department

Summer Undergraduate Research Fellowship (SURF) — McHale Fellow

University of New Haven, CT

- Research in theoretical cosmology: “Can the Shape of Our Universe Explain the Dark Matter?” June 2021 – October 2021
- Mentors: Nikodem Poplawski Ph.D., Kevin Green Ph.D., Department of Mathematics and Physics

Published Article in Catalysis and Computational Chemistry

University of New Haven, CT

October 2019 – October 2020

- Title: Single-atom zinc catalyst for co-production of hydrogen and fine chemicals over soluble biomass solution (<https://doi.org/10.1016/j.apmate.2022.100058>)
- Mentor: Dequan Xiao, Ph.D., Chemistry and Chemical Engineering Department

Research at South China University of Technology

Guangzhou, Guangdong, China

- Learning and building electrical circuits in IEEE Summer Electronic Exploration Camp July 2018– August 2018
- Experimenting in the Laboratories of Ceramics and Optical Fiber Research in The School of Material Science and Engineering

Conferences/Talks

National Conference on Undergraduate Research (NCUR)

Online

- 12 minutes of slide presentation: “Dark Energy and Dark Matter as Five-Dimensional Stereographic Projection.” April 2022
- Mentors: Nikodem Poplawski Ph.D., Kevin Green Ph.D., Department of Mathematics and Physics

Sigma Xi Student Research Conference

Online

- Poster presentation: “Dark Energy and Dark Matter as Five-Dimensional Stereographic Projection.” November 2021
- Mentors: Nikodem Poplawski Ph.D., Kevin Green Ph.D., Department of Mathematics and Physics

Gulf Coast Undergraduate Research Symposium (GCURS)

Rice University, TX

- 15 minutes slide presentation: “Dark Energy and Dark Matter as Five-Dimensional Stereographic Projection.” October 2021
- Mentors: Nikodem Poplawski Ph.D., Kevin Green Ph.D., Department of Mathematics and Physics

Summer Undergraduate Research Fellowship Showcase

University of New Haven, CT

October 2021

- Video presentation: “Can the Shape of Our Universe Explain the Dark Matter?”
- Mentors: Nikodem Poplawski Ph.D., Kevin Green Ph.D., Department of Mathematics and Physics

Teaching**Learning Assistant (Center for Learning Recourses).**

University of New Haven, CT

- Spring 2022 PHYS 2205 Electromagnetism and Optics with Laboratory
- Fall 2021 MATH 1118 Calculus II
- Spring 2021 MATH 1118 Calculus II
- Fall 2020 MATH 1118 Calculus II

Undergraduate Peer Tutor (Center for Learning Recourses)

University of New Haven, CT

August 2020 – Present

- Received CRLA International Tutor and Mentor Training Program Certification Level 2.
- Provided and helped to integrate effective learning and study strategies for assigned students.

Community Outreach**Organizer of SURF 2022 Alumni Panel**

University of New Haven, CT

June 2022

- Coordinated and hosted the Panel Discussion
- Established a network of SURF alumni and shared experience with 2022 SURF participants.

Volunteer at the Undergraduate Open House

University of New Haven, CT

April 2022

- Represented the Department of Math and Physics.
- Reached out to prospective students and parents about the program details.

Courageous Conversations: The Rise in Anti-Asian Violence Panelist

University of New Haven, CT

March 2021

- Delegated Asian international students to speak up against violence against Asian communities.
- Responded and proposed new strategies to implement diversity and inclusion.

Chinese Student and Scholar Association President

University of New Haven, CT

August 2020 – August 2021

- Organized cultural events and maintained communication with the New York Chinese Consulate.
- Managed a budget of approximately 8,000 dollars and distributed COVID-19 resources to international students.

Student Council President

Academy of the Holy Family, CT

August 2018 – August 2019

- Represented the student body at the school district and civic events and other meetings.
- Developed the agenda for and presided over the meetings of the Student Council.

Certifications & Awards

- Academic Excellence Award in Physics (University of New Haven)
- Academic Excellence Award in Mathematics (University of New Haven)
- CRLA International Tutor and Mentor Training Program Certification Level 2
- Valedictorian of Class of 2019 (Academy of the Holy Family)
- Worcester Polytechnic Institute 2018 STEM Leadership Book Award
- UCONN 2018 Avery Point Book Award
- Japanese-Language Proficiency Test (JLPT) N1
- World Olympics Mathematics Competition (China) Trials Outstanding Performance
- Strengthening Business Presentations Workshop, The Speech Improvement Company, INC., by Dr. Ethan F. Becker, Senior Coaching Partner
- The 4th International Deutscher Irmler- Klaviewettbewerb Piano Contest 1st Prize

- China National Opera and Dance Drama Theater Piano Level 10/10
- Chinese Dancers Association Level 9/10
- Shenzhen 2011 Summer Universiade Artwork Collection Certificate