Alicia M. Chun

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Education

The University of Chicago — Chicago, IL
B.S. in Computer Science with a specialization in Machine Learning, Minor in Physics — GPA: 3.723/4.00
Honors: University Scholar Award (2021), President's Scholar (2021) — Expected, June 2025

Research Experience

Human Computer Integration Lab, Computer Science Department, UChicago — Chicago, IL
Research Associate — January 2024 – Now

- Rapidly prototyped and 3D printed wearable devices to use with electric muscle stimulation.
- Programmed microcontrollers (Seeeduino, Arduino Nano, ATmega64) in **C++**.
- Designed and assembled printed circuit boards (PCBs) using **KiCad**

University of Hawai'i at Mānoa, Institute for Astronomy — Honolulu, HI
Astrophysics REU Fellow — May 2023 – July 2023

- Conducted statistical analyses of 10,000+ characteristics of M-giant stars using data from TESS and Kepler in **Python3**.
- Cross-compared oscillation periods obtained from space-based telescopes to ground-based transient surveys.
- Found the frequency of maximum oscillation power of 10,000+ M-giants using ASAS-SN survey.
- Talk: **Chun, A.**, Saunders, N., Huber, D. (2023) Testing the Asteroseismic Detection Limits of Ground-Based Transient Survey using Kepler and TESS.

Subaru Telescope NAOJ, SCExAO — Hilo, HI
Research Intern — July 2022 – September 2022

- Characterized the AO3000, their new continuous surface deformable mirror that had 4,096 individual actuators.
- Created an automatized data collection system controlling 1) movement of the deformable mirror, 2) data collection of laser interferometer, 3) data processing and saving in **Python3**
- Presented behavior characters with optical engineering company ALPAO of France.
- Publication: Lozi, L., Ahn, K., et al. including **Chun, A.**, (2024). AO3k at Subaru: First on-sky results of the facility extreme-AO. arXiv:2407.19188

Leadership & Projects

NASA L'SPACE Program, Mission Concept Academy — Remote
Professional Development Program — September 2024 - Now

- Volunteer education experience and with NASA workforce development training.
- Gain insight and skills in NASA mission protocols, procedures and practices.

Le Vorris and Vox Circus — Chicago, IL
President — March 2022 - Now

- Direct, perform, and write shows with 20+ performers for audiences of over 180 people/night.
- Reserve spaces, budgeting finances, bridge communication between faculty, performers, and tech staff.

The University of Chicago—Department of Physics — Chicago, IL
Learning Assistant — September 2023 - Now

- Facilitate small labs with ∼20 students for the introductory physics sequence courses.
- Select topics taught: diffraction, geometrical optics, polarization, field mapping electrical fields, circuits.

Mobile Theremin — Chicago, IL
CMSC 23400, Mobile Computing, Awarded 2nd place project in class — Released May 2024

- Created a mobile theremin Apple application by using the True Depth sensor to control volume and the gyroscope rotation on the apple watch to control pitch using **Swift**.

Technical Skills

Programming	Java, C, C++, Python3, Swift
Languages	English, Intermediate Spanish, Elementary German
Tools	Git, VSCode, Lightkurve, Astropy, Pandas, NumPy, Sklearn, Arduino IDE, Fusion, KiCad
Misc.	Tennis, Piano, Saxophone, Circus (aerial silks, aerial hoop, partner acrobatics)