

# Maile Sasaki

mailemsasaki@gmail.com

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## EDUCATION

**University of Illinois, Urbana Champaign** - *Atmospheric Sciences, M.S.*

AUGUST 2022 - PRESENT

**University of California, Santa Barbara** - *Physics, B.S.*

SEPTEMBER 2018 - JUNE 2022

- GPA: 3.88
- College of Letters and Sciences Honors Program

## RESEARCH EXPERIENCE

**Climate Dynamics and Data Science at University of Illinois, Urbana-Champaign**

AUGUST 2022 - PRESENT

Advisor - Dr. Cristian Proistosescu

- Currently working on a project involving the building of a Paleoclimate physical-statistical model of the Earth's natural variability constrained by coral data

**Mazin Lab, University of California, Santa Barbara**

SEPTEMBER 2020 - JUNE 2022

Advisor - Dr. Ben Mazin

MKID Machine Learning Calibration

- Updated machine learning calibration system for Microwave Kinetic Inductance Detectors, known as MKIDs, to Keras, Tensorflow 2.0, and Python 3.
- Added accessibility features for first-time users and users outside the research group in need of machine learning calibration.

LLTF High Contrast Filter API

- Helped build an API for ease of use of the LLTF High Contrast Filter at the Subaru Observatory
- Assisted in the boot up and repurpose of an imaging spectrophotometer for use in another laboratory setting.

**Lab of Dr. Ken Shea, University of California, Irvine**

JUNE 2019 - SEPTEMBER 2019

Advisor - Dr. Ken Shea

- Aided in development of anti-venom nanoparticle characterization via octanol-water partition analysis

## PUBLICATIONS

### **MKID Machine Learning Calibration Repository**

- Repository for fine tuning and calibrating resonators. Originally built for MKIDs, but can be used for other purposes.
- Python 3 coding that contains a script that takes a config file to train a deep learning model and another one that uses said model to identify and tune resonators.
- Located at <https://github.com/mailesasaki/MKIDMLCalibration>

## VOLUNTEERING

### **Midwest Student Conference of Atmospheric Research - Volunteer**

OCTOBER 1-2, 2022

- Helped with organization and set up of conference

### **Irvine Ranch Conservancy - Volunteer**

JULY - DECEMBER 2019

- Harvested seeds from plants at a native seed farm for the purpose of recovering areas affected by wildfire and invasive plant growth.

## TEACHING EXPERIENCE

### **Kumon Math and Reading, Goleta CA - Early Learner Tutor**

SEPTEMBER 2021 - JUNE 2022

- Tutoring 5 to 8 year old students in math and reading

### **Kumon Math and Reading, Livermore CA - Assistant Manager**

FEBRUARY 2017 - JULY 2018

- Ran facility when manager was absent
- Tutored students
- Managed student records, including forms and grades
- Performed administrative duties
- Answered telephone calls, customer service duties

### **Private Tutor**

SEPTEMBER 2017 - MAY 2018

- Algebra 1 tutor to a high school student

## SKILLS

- Machine Learning: Keras, Tensorflow
- Fluency in Japanese
- Data science, programming: Python 3.0