


MAYA MALLABY-KAY

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Astrophysics PhD Student with a degree in patisserie and a love for hiking.

- Hard skills in Python, GitHub, and Docker
- Passionate about leveraging data science to help combat climate change

EDUCATION

University of Chicago, Chicago

September 2020 - Present

PhD Candidate, Astrophysics (Transferred from University of Michigan)

University of Michigan, Ann Arbor

August 2018 - August 2020

Masters of Science, Physics

Columbia University, New York

September 2014 - December 2017

Bachelor of Arts, Astrophysics

RESEARCH AND DATA ANALYSIS EXPERIENCE

Doctoral work

September 2020 - Current

University of Chicago

Research Assistant

- Developed large-scale simulations of the observable universe using python based emulators
- Conducted a statistical analysis of 250,000 distant galaxies using a Markov Chain Monte Carlo parameter estimation code - [Paper accepted to PRD](#)
- Led efforts to write tutorials targeted at teaching other scientists how to analyze data from the Atacama Cosmology Telescope using Python

Master's work

September 2018 - September 2020

University of Michigan

Research Assistant

- Prepared Python tutorials and a Docker container to enable users to work with data products from the Atacama Cosmology Telescope's data releases - [Paper accepted to ApJS](#) and tutorials on [GitHub](#)
- Used Python-based tools to analyze maps of the Cosmic Microwave Background

TEACHING AND OUTREACH EXPERIENCE

Data Science Summer Schools

April & August 2021

Atacama Cosmology Telescope Collaboration

Instructor

- Organized and taught 2 week-long summer schools targeted at teaching graduate students how to analyze maps of the sky from the Atacama Cosmology Telescope

Science Communication Talks

October & November 2019

- Presented research talks to a nontechnical audience at NerdNite Ann Arbor & Astro on Tap

AWARDS AND ACHIEVEMENTS

NSF Graduate Research Fellow

Department of Energy SCGSR Fellow

RELATE STEM Communication Fundamentals

Beesen Global Research Fellowship

SKILLS AND INTERESTS

Python Skills

Scipy, Scikit-learn, Pandas, JAX

Additional Technical Skills

L^AT_EX, Excel, Docker, GitHub

Languages

English (native), French (conversational), Spanish (beginner)

Interests

Rock climbing, Traveling, Cooking, DEI in STEM