

MASON V. TEA

Curriculum Vitae

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📍 Delaware, OH / Middletown, CT

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🐦 @masonvtea

EDUCATION

Bachelor's degree

Wesleyan University

📅 Aug. 2017 - Present

📍 Middletown, CT

- Majors: Physics and Astronomy
- GPA: 86.3/100

RESEARCH

Classifying X-ray binaries in the local universe

Kilgard lab, Wesleyan Department of Astronomy

📅 Feb. 2020 - Present

📍 Wesleyan University

- Work on classifying ultraluminous x-ray (ULX) sources in the local universe using *Chandra*.

Simulating the Solar Gravitational Lens

Redfield lab, Wesleyan Department of Astronomy

📅 Aug. 2017 - Aug. 2019

📍 Wesleyan University

- Created a general relativistic raytracing algorithm to simulate images taken by the Solar Gravitational Lens (SGL) using Python.

TEACHING

Teaching Assistant: ASTR 107

Professor: Dr. William Herbst, Department of Astronomy

📅 Fall 2019

📍 Wesleyan University

- Responsible for conducting weekly homework help sessions for students, leading laboratory exercises in class, and grading labs & weekly homework for 50 students.

SKILLS

- Teaching
- Programming: Python, C/C++, Mathematica
- Tools/Frameworks: \LaTeX , Unix, Git, SQL
- Languages: English (native), Japanese (CEFR A2)
- Data science

COURSEWORK HIGHLIGHTS

Physics: Quantum Mechanics I/II, Electricity and Magnetism, Thermal and Statistical Physics, Classical Dynamics, Special Relativity, General Relativity (tutorial), Mathematics for Theoretical Physics (tutorial)

Astronomy: Observational Astronomy, Galaxies, Quasars, & Cosmology, Stellar Structure & Evolution, Exoplanets (expected), Radio astronomy (expected), Astronomical Pedagogy

Other: Computer Science I, Discrete Mathematics

ACTIVITIES

Student Director

Van Vleck Observatory

📅 Aug. 2019 - Present

📍 Wesleyan University

- In charge of training new students on Van Vleck Observatory's 24" Perkin research telescope, selecting and scheduling targets for regular observing, and maintaining the research telescope facilities.
- Site: <https://mvtea.github.io/WOP/wop.html>

Member

Wesleyan Astronomy Diversity Journal Club

📅 July. 2019 - Present

📍 Wesleyan University

Public outreach in astronomy

Van Vleck Observatory

📅 Aug. 2017 - Present

📍 Wesleyan University

Telescope Operator

Van Vleck Observatory

📅 Aug. 2017 - Present

📍 Wesleyan University

Astronomy Club

Co-founder

📅 Aug. 2018 - Present

📍 Wesleyan University

HONORS & AWARDS

Research Fellow

CIS Summer Research Program

📅 Summer 2020

📍 Wesleyan University

Research Fellow

CIS Summer Research Program

📅 Summer 2019

📍 Wesleyan University

Scholarship Recipient

CT Space Grant Consortium

📅 Fall 2019

PRESENTATIONS

XRB Poster

CIS Summer Research Program

📅 Summer 2020

📍 Wesleyan University

SGL Talk

KECK Northeast Astronomy Consortium

📅 Summer 2019

📍 Vassar College