

# 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, SQL, C/C++, Mathematica
- Tools/Frameworks:  $\LaTeX$ , Unix, Git
- 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>

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

Talk on SGL Research

**KECK Northeast Astronomy Consortium**

📅 Summer 2019

📍 Vassar College

Poster on SGL Research

**CIS Summer Research Program**

📅 Summer 2019

📍 Wesleyan University