

## PERSONAL INFO

## CONTACT

🏠 39 Brainerd Ave.  
Middletown, CT 06459  
✉ mtea@wesleyan.edu  
📞 1-740-751-7714

## ONLINE

🌐 mvtea.github.io  
🐦 @masonvtea  
in masonvtea

## EDUCATION

## WESLEYAN UNIVERSITY

Middletown, CT

## B.A. IN ASTRONOMY

August 2017 - May 2021  
Maj. GPA: 3.7/4.0  
Cum. GPA: 3.13/4.0

## B.A. IN PHYSICS

August 2017 - May 2021  
Maj. GPA: 3.0/4.0  
Cum. GPA: 3.13/4.0

## NORTH UNION HS

Richwood, Ohio

## HIGH SCHOOL DIPLOMA

August 2013 - May 2017  
Graduated with honors  
GPA: 3.83/4.0

## TECHNICAL SKILLS

## PROGRAMMING

Python • C • MySQL •  $\text{\LaTeX}$   
Mathematica • HTML/CSS

## TOOLS &amp; FRAMEWORKS

Unix • Windows • Git  
CIAO • Sherpa

## REFERENCES

## ROY E. KILGARD, PHD

Assoc. Prof. of the Practice

🏢 Wesleyan University,  
Department of Astronomy  
✉ rkilgard@wesleyan.edu

## SETH REDFIELD, PHD

Associate Professor

🏢 Wesleyan University,  
Department of Astronomy  
✉ sredfield@wesleyan.edu

## RESEARCH

## CLASSIFYING X-RAY BINARIES IN THE LOCAL UNIVERSE

Spring 2019 – Present | Wesleyan University, Department of Astronomy

Work with **Prof. Roy Kilgard** to perform detailed spectro-temporal analysis & determine X-ray spectral state for a flux-limited sample of  $\sim 80$  suspected X-ray binaries within 15 Mpc in archival *Chandra* observations. *Honors thesis on this research in preparation.*

## SIMULATING THE SOLAR GRAVITATIONAL LENS

Fall 2017 – Spring 2020 | Wesleyan University, Department of Astronomy

Worked with **Prof. Seth Redfield** to develop a general-relativistic raytracer capable of accurately simulating images from the Solar Gravitational Lens (SGL), for use as a training set in a machine-learning deconvolution algorithm.

## OUTREACH &amp; ACTIVITIES

## STUDENT DIRECTOR, VAN VLECK OBSERVATORY

Summer 2019 – Present | Wesleyan University

## CO-FOUNDER, WESLEYAN ASTRONOMY &amp; SPACE CLUB

Fall 2018 – Present | Wesleyan University

## CO-FOUNDER, COSMOLOGY &amp; ASTROPARTICLE PHYSICS JOURNAL CLUB

Spring 2019 – Present | Wesleyan University

## MEMBER, STEM DIVERSITY JOURNAL CLUB

Summer 2020 – Present | Wesleyan University, Department of Astronomy

## READING COURSE ON GRAVITATIONAL THEORY

Spring 2018 – Spring 2019 | Wesleyan University, Department of Physics

## TELESCOPE OPERATOR

Fall 2017 – Present | Van Vleck Observatory

## VOLUNTEER, VVO KIDS' NIGHTS &amp; SPACE NIGHTS

Fall 2019 – Present | Wesleyan University, Department of Astronomy

## TEACHING

## COURSE ASSISTANT, INTRODUCTION TO ASTROPHYSICS

Fall 2020 | Wesleyan University, Department of Astronomy

## TEACHING ASSISTANT, THE UNIVERSE

Fall 2019 | Wesleyan University, Department of Astronomy

## PRESENTATIONS

2021	Poster	237th Meeting of the American Astronomical Society
2020	Poster	Wesleyan University Summer Research Symposium
2019	Talk	30th KNAC Undergraduate Research Symposium
2019	Poster	Wesleyan University Summer Research Symposium

## HONORS &amp; AWARDS

2020	Wesleyan University Summer Research Fellow
2019	Wesleyan University Summer Research Fellow
2018	NASA CT Space Grant Consortium Undergraduate Scholarship