

PERSONAL INFO

CONTACT

🏠 39 Brainerd Ave.
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ONLINE

🌐 mvtea.github.io
🐦 @masonvtea
in masonvtea

EDUCATION

WESLEYAN UNIVERSITY

Middletown, CT
Cumulative GPA: 3.13/4.0

B.A. IN ASTRONOMY

August 2017 - May 2021
Major GPA: 3.7/4.0

B.A. IN PHYSICS

August 2017 - May 2021
Major GPA: 3.0/4.0

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 • \LaTeX
Mathematica • HTML/CSS

TOOLS & FRAMEWORKS

Unix • Windows • Git
CIAO • Sherpa • BigQuery

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 2020 – 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 ~ 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 & ACTIVITIES

STUDENT DIRECTOR, VAN VLECK OBSERVATORY

Summer 2019 – Present | Wesleyan University

CO-FOUNDER, WESLEYAN ASTRONOMY & SPACE CLUB

Fall 2018 – Present | Wesleyan University

CO-FOUNDER, COSMOLOGY & 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 & SPACE NIGHTS

Fall 2019 – Present | Wesleyan University, Department of Astronomy

TEACHING

COURSE ASSISTANT, OBSERVATIONAL ASTRONOMY

Spring 2021 | Wesleyan University, Department of Astronomy

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 & AWARDS

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