

CASSIDY WAGNER

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<https://cassidymwagner.github.io>

EDUCATION

- The University of Illinois at Urbana-Champaign** June 2018 — Present
Department of Astronomy
Masters in Astronomy
Expected May 2021
- The University of Oklahoma** August 2015 — May 2018
Homer L. Dodge Department of Physics and Astronomy
B.S. in Astrophysics, May 2018

RESEARCH EXPERIENCE

- The University of Illinois at Urbana-Champaign** June 2018 — Present
Research Assistant
- Numerical hydrodynamical simulations of Population III stars in **enzo**
 - Implementation of driven subgrid-scale turbulence modeling in **GAMER**
 - Hydrodynamical visualizations in **yt**
- The University of Oklahoma** January 2016 — May 2018
Undergraduate Research Assistant
- Used MCMC to constrain and fit quasar spectral energy distributions
 - Used linear regression techniques to characterize correlations in quasars
 - On-site and remote observations at the MDM Observatory and APO
 - Reduced, cleaned, reconstructed, and fit broad absorption line quasar spectra
- The University of Texas Rio Grande Valley** June 2017 — August 2017
Research Experience for Undergraduates
- Created methods to simulate pulsar signal components and incorporate into pulsar signal simulator
 - Contributed to incorporation of gravitational waves in pulsar timing software **PINT**
 - Made progress in generating **PSRFITS** files from simulated pythonic data
- The University of Oklahoma** May 2016 — August 2016
Research Experience for Undergraduates
- Fit composite quasar spectra to generate models for spectral principal component analysis
 - Reconstructed broad absorption line quasar spectra from eigenspectra generated from **SPCA**

TECHNICAL SKILLS

Computer Languages	Python, Shell, C++, CSS
Software and Tools	Jupyter, Sherpa, GAMER , Mathematica, MESA , Git, Vim, \LaTeX
Operating Systems	Unix/Linux

SERVICE

Society for Equity in Astronomy

Treasurer

May 2019 — Present

The Hacker Within

President

May 2019 — Present

Graduate Employees Organization Communications Committee

Co-President

May 2019 — Present