

CASSIDY WAGNER

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<https://cassidymwagner.github.io>

EDUCATION

The University of Illinois at Urbana-Champaign June 2018 — Present
Department of Astronomy
Ph. D. in Astronomy
Expected May 2023

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

- Implementing 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, L ^A T _E X
Operating Systems	Unix/Linux

SERVICE

Society for Equity in Astronomy May 2019 — Present
Treasurer

The Hacker Within

President

May 2019 — Present

Graduate Employees Organization Communications Committee

Co-President

May 2019 — Present