

CASSIDY WAGNER

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<https://github.com/cassidymwagner>

EDUCATION

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| The University of Illinois at Urbana-Champaign
Department of Astronomy
Ph. D. in Astronomy, concentration in CSE
Expected May 2023 | June 2018 — Present |
| The University of Oklahoma
Homer L. Dodge Department of Physics and Astronomy
B.S. in Astrophysics, May 2018 | August 2015 — May 2018 |

RESEARCH EXPERIENCE

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| The University of Illinois at Urbana-Champaign
<i>Research Assistant</i> <ul style="list-style-type: none">· Implementing driven subgrid-scale turbulence modeling in GAMER· Hydrodynamical visualizations in yt | June 2018 — Present |
| The University of Oklahoma
<i>Undergraduate Research Assistant</i> <ul style="list-style-type: none">· 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 | January 2016 — May 2018 |
| The University of Texas Rio Grande Valley
<i>Research Experience for Undergraduates</i> <ul style="list-style-type: none">· 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 | June 2017 — August 2017 |
| The University of Oklahoma
<i>Research Experience for Undergraduates</i> <ul style="list-style-type: none">· Fit composite quasar spectra to generate models for spectral principal component analysis· Reconstructed broad absorption line quasar spectra from eigenspectra generated from SPCA | May 2016 — August 2016 |

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, Windows