Dylan Gatlin

Resume

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EDUCATION

2015 – 2019

Bachelors of Arts in Astrophysics
Minor in Atmospheric Science
University of Colorado at Boulder

Cum laude, 3.441 GPA

WORK EXPERIENCE

CURRENT, FROM AUG 2019 (FT)

Telescope Operations Specialist
Sloan Digital Sky Survey

New Mexico State University

- Operate the 2.5m Sloan Digital Sky Survey telescope at the Apache Point Observatory
- Monitor weather, instrument sensors, and mission goals during the night and adapt observing strategies accordingly
- Effectively communicate with an international team
- Write, organize, and maintain and upgrade software used for operations and logging, primarily in Python
- Diagnose and fix software and hardware difficulties while protecting instruments and optimizing observation time

AUG 2017 – DEC 2018 (PT)

Teaching Assistant
University of Colorado at Boulder

ASTR 2600: Scientific Programming

- Engage students in material during lecture and tutorials
- Meet with students individually during office hours to help with assignments
- Design and create lessons to introduce new topics
- Grade students assignments weekly and interpret responses to help guide the course direction

RESEARCH EXPERIENCE

MAY 2017 – MAY 2019 (PT)

Atmospheric Modeling and Spectral Analysis
Eric T. Wolf

Laboratory for Atmospheric and Space Physics

- Parse climate models and NASA's exoplanet archive in order to run line-by-line radiative transfer models
- Create 1500 line data pipeline around NASA's Planetary Spectrum Generator to simulate exoplanet transits and thermal phase curves
- Analyze JWST transit spectra using Python and interpret results, including signal to noise analysis

PUBLICATIONS

Gatlin, D. (2019). Methods to Detect Habitable Atmospheres on the Terrestrial Exoplanet TRAPPIST-1 e (honor's thesis)

Wolf, E. T., **Gatlin, D.**, Kopparapu, R. K., Haqq-Misra, J., Villanueva, G. (2017). TRAPPIST-1 e: 3D Climate modeling and Derived Observational Signals (poster)

Gatlin, D., Lee, J., Kowalski, A. (2019). Constraining dMe Flare Models with YZ CMi Optical Photometric Observations (poster)

COMPUTER SKILLS

INTERMEDIATE	Mathematica, IRAF, C
ADVANCED	Unix, Fortran
EXPERT	Python, LaTeX

RELEVENT COURSEWORK

ASTR 2600	Scientific Programming
ASTR 3710/ASTR 3750	Starfleet Academy (Planetary track)
ASTR 3510/ASTR 3520	Observational Astronomy
ATOC 4500	Remote Atmospheric Sensing
ATOC 4500	Numerical Modeling
PHYS 3210	Classical Mechanics 2
PHYS 3320	Electricity and Magnetism 2
PHYS 3310	Quantum Mechanics
MATH 2130	Linear Algebra
MATH 3430	Ordinary Differential Equations

REFERENCES

Dr. Jeremy Darling
Associate Professor, CU Boulder

Dr. David Brain
Associate Professor, CU Boulder

Dr. Eric T. Wolf
Researcher, LASP