# Dylan Gatlin

*Resume*

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https://github.com/StarkillerX42

## EDUCATION

2015 – 2019

### Bachelors of Arts in Astrophysics
***University of Colorado at Boulder***

Cum laude, 3.441 GPA

2012 – 2015

### International Baccalaureate Diploma
***George Washington High School***

Academic Letterman & Certificate in Physics

## RESEARCH EXPERIENCE

CURRENT, FROM MAY 2017 (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

SEP 2016 – JUN 2017 (PT)

### Telescope Operation and Data Reduction
***Guy Stringfellow***

Center for Astrophysics and Space Astronomy

- Independently operate the 0 5m telescope ARCSAT
- Select observation targets given weather conditions and target priority
- Reduce data using IRAF on a remote server
- Train new team members in procedures and best practices

## WORK EXPERIENCE

AUG 2017 – DEC 2018 (PT)

### Teaching Assistant
***University of Colorado at Boulder***

ASTR 2600: Scientific Programming

- Fall 2017, Spring 2018, Fall 2019; between 8 and 15 hours week
- Engage students in material during lecture, tutorials, and individually in office hours
- Design and create lessons to introduce new topics
- Grade students assignments weekly and interpret responses to help guide the course direction

## PUBLICATIONS

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

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

## 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***

jeremy.darling@colorado.edu
*http://casa.colorado.edu/~jdarling/*

### Dr. David Brain
***Associate Professor***

david.brain@colorado.edu

### Dr. Eric T. Wolf
***Researcher***

eric.wolf@colorado.edu

### Dr. Peter Pilewskie
***Professor***

peter.pilewskie@lasp.colorado.edu