

# Dylan Gatlin

## *Curriculum Vitae*

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<https://github.com/StarkillerX42>  
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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

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

### 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)

## WORK EXPERIENCE

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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 software used for operations and logging, including handling many Python 2 to Python 3 upgrades
- Diagnose and fix a variety of unexpected software and hardware difficulties while protecting instruments and optimizing observation time

JAN 2019 – MAY 2019 (PT)

### Learning Assistant *University of Colorado Boulder*

ASTR 1030: Accelerated Introduction to Astronomy

- 3 2 hour recitations a week with a total of 10 hours per week
- Engage students in material during labs
- Take a 2 credit hour course on pedagogical techniques
- Collect surveys from students to study their learning 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 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

MAY 2015 – AUG 2016 (FT)

### Field Sales Manager, Branch Manager *Vector Marketing*

Rocky Mountain Division

#### **Field Sales**

- Independently prepare, present, and market to customers on a face-to-face basis
- Communicate effectively with prospective customers over the phone
- Maintain professional relationships with customers over extended periods of time
- Maintain an average order size and closing percentage above the national and regional averages

## Branch Manager

- Open a new branch office during our busiest time of year
- Independently recruit and interview new sales representatives
- Conduct a weekly two day training for new sales representatives, as well as 3 follow-up advanced trainings
- Manage sales representatives, particularly during their first few weeks

## LEADERSHIP EXPERIENCE

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### President/Vice President *CU Astronomy Club*

AUG 2015 – DEC 2017 (PT)

- President for 1 year, Vice President for 2 years
- Plan weekly meetings and coordinate presenters or guest lecturers
- Organize monthly dark sky trips to dark sites around Colorado
- Lead a six person team of executive board members to lead the club
- Create engaging holiday events on the campus observatory to connect with the community
- Plan an annual camping trip for club members to Great Sand Dunes National Park
- Present one hour shows during the weekly meeting about exciting astronomical objects, showing recent research findings
- Introduce new members to astrophysical research methods including telescope operation and data reduction in IRAF

## AWARDS

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### President's Club *Vector Marketing*

2015

### Esteemed Scholars Recipient *University of Colorado at Boulder*

2015 – 2018

Baker Scholar

### Dean's List *University of Colorado at Boulder*

2018

## PROGRAMMING SKILLS

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EXPERT	Python L <sup>A</sup> T <sub>E</sub> X
ADVANCED	Unix Fortran
INTERMEDIATE	Mathematica IRAF C

## RELEVANT COURSEWORK

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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

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Reference contact information available upon request

**Dr. Jeremy Darling**  
*Associate Professor, CU Boulder*

<http://casa.colorado.edu/~jdarling/>

**Dr. David Brain**  
*Associate Professor, CU Boulder*

**Dr. Eric T. Wolf**  
*Researcher, LASP*

**Dr. Peter Pilewskie**  
*Professor, CU Boulder*