Dylan Gatlin

Curriculum Vitae

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EDUCATION

CURRENT, FROM AUG 2020

Masters in Astophysics
New Mexico State University

4.0 GPA

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

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

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

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 and related computers, instruments, and subsystems.
- Monitor weather, instrument sensors, and mission goals during the night and adapt observing strategies accordingly
- Effectively communicate with an international team of researchers
- Develop and maintain operations software, primarily in Python
- Diagnose and fix 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

- Teach two hour recitations three times a week
- Engage students in material during labs
- Take a two credit hour course on pedagogical techniques
- Collect information from students to study their learning experience

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 provide guidance on assignments
- Design and create lessons to introduce new topics
- Grade students assignments weekly and interpret results to help guide the course direction

MAY 2015 – AUG 2016 (FT)

Field Sales Manager, Branch Manager
Vector Marketing

Rocky Mountain Division

Field Sales Manager

- 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

AUG 2015 – DEC 2017 (PT)

President/Vice President
CU Astronomy Club

- 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

2015

President's Club
Vector Marketing

2015 – 2018

Esteemed Scholars Recipient
University of Colorado at Boulder

Baker Scholar

2018

Dean's List
University of Colorado at Boulder

PROGRAMMING SKILLS

EXPERT	Python LaTeX
ADVANCED	Unix C Fortran
INTERMEDIATE	Mathematica IRAF/PyRAF

RELEVANT COURSEWORK

ASTR 3510/ASTR 3520	Observational Astronomy
ASTR 3710/ASTR 3750	Starfleet Academy (Planetary track)
ASTR 2600	Scientific Programming
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

Reference contact information available upon request

Dr. Kaike Pan
Lead Observer, SDSS

Dr. David Brain
Associate Professor, CU Boulder

Dr. Jeremy Darling
Associate Professor, CU Boulder

Dr. Eric T. Wolf
Researcher, LASP