

Dillon J Teal (“Teal”)

Astrophysicist; Software Engineer; Fiber Artist

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Pronouns: They/Them

<https://teald.github.io/>

PROFESSIONAL EXPERIENCE

University of Maryland, College Park — *Research Assistant*

August 2021 - Present

- Python and C high-performance model development of a new 1-D photochemistry model
- A part of international collaborations to develop new scientific software and write scientific publications about exoplanetary atmospheres and the nature of their stellar environments

University of Maryland, College Park — *Graduate Assistant*

August 2018 - August 2021

- Used Python, C, and Fortran to model Exoplanet atmospheres from baseline physics and chemistry to observable characterization
- Co-investigator for successful national proposals through the Hubble Space Telescope and the National Science Foundation
- Taught university courses in astronomy and mathematics

NASA Goddard Space Flight Center, Greenbelt, MD — *Research Contractor*

January 2017 - August 2018

- Maintained the Atmos photochemistry and climate model
- Wrote Python and Bash programs to automate running and analysis of the scientific models
- Worked on a Docker and Django-based web framework to provide a framework for shipping scientific models to customers and the scientific community

University of California, Santa Cruz, CA — *Junior Specialist*

January 2016 - December 2016

- Used large computing clusters and Python job management systems to characterize haze-bearing atmospheres
- Worked with high-performance computing software written in Fortran and Python
- Analyzed data from the *Cassini* satellite’s observations of Saturn’s moon Titan

NASA Goddard Space Flight Center, Greenbelt, MD — *Remote Contractor*

August 2015 - December 2016

- Maintained several atmospheric models in Fortran and Python
- Managed model development remotely with a team across time zones
- Developed novel solutions for updating legacy models (primarily those written in Fortran 77 and 95)

EDUCATION

University of Maryland, College Park, MD — *Master’s of Science in Astronomy*, 2020

University of California, Santa Cruz, CA — *Bachelor’s of Science in Physics (Astrophysics)*, *Minor in Pure Mathematics*, *Cum Laude*, 2015

PROGRAMMING EXPERIENCE

+ Python
+ Fortran
+ C/C++
+ HTML/CSS
+ bash

TOOLS

+ numpy, pandas, matplotlib, scipy, astropy
+ Jupyter Notebooks
+ git
+ LaTeX
+ Docker
+ SQL
+ OS: Windows, Linux (Ubuntu, CentOS, Debian), and macOS

OTHER SKILLS

+ Microsoft Office suite
+ Visual Studio
+ Technical writing for scientific publications and product documentation

AWARDS

+ Philip E. Angerhofer Outstanding Teaching Assistantship Award

PUBLICATIONS

+ [Teal et al. 2022](#)
+ [Marley et al. 2021](#)
+ [Diamond-Lowe et al 2021](#)
+ [Melbourne et al. 2020](#)
+ [Kopparapu et al. 2018](#)
+ [Morley et al. 2017](#)