ERIN E. FLOWERS

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EDUCATION:

Princeton University, Department of Astrophysical Sciences
> M.Sci., Astrophysical Sciences (received May 2019)
> PhD, Astrophysical Sciences (received May 2023)

Columbia University, Columbia College
> B.A. Astrophysics (received May 2017)

SKILLS:

Advanced experience in Python, IDL and Fortran; moderate experience in C/C++ and SQL; advanced knowledge of calculus, statistics, and linear algebra; advanced experience in public speaking; advanced experience in Microsoft Suite, Google Cloud Services, and Apple iWork Suite; experience in website design (HTML); moderate experience in parallelized supercomputing

LANGUAGES:

German (advanced), French (moderate)

JOB EXPERIENCE:

Assistant Director, STEM Education, Council on Science and Technology (Princeton University, 2023 – present)
- Conduct cutting edge research in personal field of focus (astrophysics)
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NASA Research Scientist (NASA Dragonfly Mission, 2022 – present)
- Conceptualize and execute computational experiments on the NASA Pleiades Supercomputer in Fortran, python, and C to determine global atmospheric dynamics for Titan
- Quantitatively analyze complex datasets of model output for Titan's atmosphere and publish results
- Collaborate with team members to optimize modeling methods in support of engineering work

Graduate Research Assistant (Princeton University, 2017 – 2023)
- Conceptualize and execute computational experiments in python to determine global atmospheric chemistry for Titan
- Create models in python that utilize a combination of observational and laboratory data in a novel study
- Create and execute observing programs at the Magellan Telescopes

Undergraduate Research Assistant (Columbia University & University of Michigan, 2015 - 2017)
- Conceptualize and execute computational experiments in IDL, python, and C to determine global atmospheric dynamics for hot Jupiter exoplanets
- Quantitatively analyze complex datasets of computational model output and observations of hot Jupiters in a novel study

h-index/citation count: 9/249

LEADERSHIP AND COMMUNITY SERVICE:

American Astronomical Society Committee on the Status of Minorities in Astronomy Member (2018 – present)
Princeton University Access, Diversity and Inclusion Diversity Fellow (Princeton, NJ, September 2018 – May 2023)
- Create campus programming to foster community and belonging amongst graduate students from underrepresented groups
- Manage a discretionary fund to produce high-quality events across campus groups
- Travel to network and recruit prospective PhD students
- Conduct interviews for administrative positions at Princeton University

Princeton University Prison Teaching Initiative (PTI) Math & Physics Fellow (Princeton, NJ, September 2019 – May 2023)
- Manage a team of 60+ volunteers (recruiting, hiring, scheduling)
- Create and curate teaching materials for all math and science courses taught inside
- Liaise between volunteers, PTI, and accrediting college and government partners

AWARDS AND FELLOWSHIPS:

- Princeton University Association of Black Graduate Alumni Patrice Y. Johnson *80 Service Award (Spring 2023)
- Princeton University Prison Teaching Initiative Math Fellowship (Fall 2019 – Spring 2023)
- Princeton University Access, Diversity and Inclusion Graduate Fellowship (Fall 2018 – Spring 2023)
- National Science Foundation Graduate Research Fellowship (2017 - 2022)