

# Gillen Brown

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## Education

<b>University of Michigan</b> Ph.D. Astronomy and Astrophysics	Ann Arbor, MI April 2022
<b>University of Missouri-Kansas City</b> B.S. Physics with emphasis in Astronomy Minors in Mathematics and Computer Science GPA: 4.0/4.0 (Summa Cum Laude)	Kansas City, MO May 2016

## Research Experience

<b>University of Michigan</b> <i>Graduate Student Research Assistant</i>	Ann Arbor, MI September 2016 — April 2022
<ul style="list-style-type: none"><li>• Used a Bayesian model to measure the radii of ~6000 star clusters seen in Hubble Space Telescope images</li><li>• Statistically characterized the population of star cluster radii to test theories of star cluster evolution</li><li>• Developed a method to improve the computational efficiency of numerical simulations of galaxy formation</li><li>• Analyzed the properties of star clusters in numerical simulations of galaxy formation</li><li>• Presented work at local seminars and large scientific conferences (audiences from 5 to 100+ people)</li></ul>	
<b>University of Missouri-Kansas City</b> <i>Undergraduate Researcher</i>	Kansas City, MO June 2014 – May 2016
<ul style="list-style-type: none"><li>• Developed an automated method to estimate the redshift of galaxy clusters</li></ul>	

## Leadership and Teamwork Experience

<b>Michigan Dark Skies</b> <i>Co-coordinator</i>	Ann Arbor, MI September 2019 — April 2022
<ul style="list-style-type: none"><li>• Coordinated the activities of this group with 100+ members working to prevent light pollution</li><li>• Worked with Central Student Government to pass a resolution encouraging U of M to reduce light pollution</li></ul>	
<b>University of Michigan</b> <i>Graduate Student Instructor</i>	Ann Arbor, MI September 2017 — April 2021
<ul style="list-style-type: none"><li>• Facilitated lab sections for four introductory level astronomy courses (~100 students per course)</li><li>• Sole instructor for 50 student course “Naked Eye Astronomy”</li><li>• Mentored 10 other graduate student instructors</li></ul>	
<b>University of Michigan Museum of Natural History</b> <i>Science Communication Fellow</i>	Ann Arbor, MI May 2019 – March 2020
<ul style="list-style-type: none"><li>• Created hands-on activity for children demonstrating the amounts of different elements in the Universe</li><li>• Delivered multiple presentations on astronomy for museum visitors of all ages</li></ul>	

## Selected Awards

- **2020 Michigan Institute of Data Science: Basketball Data Madness Challenge** — Won a UM competition by extracting actionable insights from basketball player performance data
- **2021 Astronomy DEI Champion** — Awarded for helping form an antiracism reading group

## Skills

**Technical Skills:** Python (including SciPy, NumPy, etc.), C/C++, Unix, LaTeX, git  
**Data Analysis:** Statistics and probability, linear regression, Bayesian modeling, data visualization  
**Soft Skills:** Technical writing, public speaking, critical thinking, problem solving