

Savanah Barnes, Teaching Specialist - Continuing

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LINKS

[LinkedIn](#), [GitHub](#), [Website](#)

PROFILE

As a computer scientist, researcher, and educator, I am passionate about using my skills and knowledge to address social issues while fostering the growth of the next generation of achievers. I enjoy using my backgrounds in computer science, psychology, philosophy, and cognitive science to solve interdisciplinary problems. Pushing the boundaries of science excites and worries me; I hope to create equitable, sustainable, and progressive systems and ideas that encourage safety and happiness.

EDUCATION

Aug 2025 — Present	Ph.D in Linguistics, Michigan State University	East Lansing, MI
	First-language acquisition, computational linguistics, and cognitive science.	
Aug 2019 — May 2024	B.S. & M.S. in Computer Science, Michigan State University, Honors College	East Lansing
	5-year M.S. program in computer science with Honors. Three undergraduate minors: environmental sustainability studies, cognitive science, and philosophy and one graduate specialization in cognitive science.	
Aug 2019 — May 2023	B.S. in Psychology, Michigan State University	East Lansing
	Dual-Degree with Computer Science	
Aug 2023 — Nov 2023	TAR Express: A Teaching-as-Research Very Short Course, CIRTL	
	TAR course offered through the Center for the Integration of Research, Teaching and Learning	

EMPLOYMENT HISTORY

Aug 2024	Teaching Specialist , Department of Statistics	Michigan State University
	85% teaching, 10% advising, and 5% service for the Department of Statistics in the College of Natural Sciences. I am involved with the Master of Science in Data Science (MSDS) program and undergraduate education.	
	Fall 2024:	
	STT 810: Mathematical Statistics for Data Scientists (MSDS)	
	STT 210: Statistical Methods (transitioning the course to in-person)	
	Spring 2025:	
	STT 811: Applied Statistical Modeling for Data Scientists (MSDS)	
	Graduate Course Development	
	Fall 2025:	
	STT 810: Mathematical Statistics for Data Scientists (MSDS)	
	STT 210: Statistical Methods (transitioning the course to in-person)	
	STT 8xx: Statistical Methods in Python	
	A teaching portfolio can be found on my website in the near future.	
May 2024 — Aug 2024	Philosophy & Safety Engineering Intern, NASA - Langley Research Center	Langley, VA
	Internship under Dr. C. M. Holloway and Dr. Sarah Lehman under the NASA Langley Safety-Critical Avionics Systems Branch supporting the Research Directorate (RD). My project is two-fold:	
	1. Creating a technical manuscript for public release. It details a novel technical and organizational system for learning, sharing, and creating FAN arguments.	

- 2. Collaboration as a consultant with Collins Aerospace on learning modules and presentation for technical and non-technical persons interested in FAN arguments, the Overarching Properties (OPs), and Overarching Property Related Arguments (OPRAs). Consulting will continue past my internship.

Aug 2023 — Present	Graduate Teaching Assistant (GTA), Department of Computer Science	Michigan State University
	Co-facilitating a lab for CSE 231 (Introduction to Computer Science - 1) with 30 students. I create and present material and help coordinate, develop, teach, and grade labs, homework, and exams. Additionally, I monitor the online class forum and make additional study materials based on student needs. Prior to becoming a GTA, I was an undergraduate teaching assistant for four years. My job responsibilities were the same.	
Feb 2023 — Nov 2023	Global Data Science Intern, Kellanova	Battle Creek
	Working with a global information technology and data science team to implement new technologies and learning material in Kellogg Company's workflow. I created an R Academy to asynchronously teach data scientists R coding and practice. The academy was created for those with a technical and non-technical background. Additionally, I was an integral part of the PVT project – creating and refactoring machine learning code to forecast raw material sales.	
Feb 2022 — Nov 2024	Instructional Design & Software Dev. Intern, Interoperability Institute	Ann Arbor
	Created learning content based on health IT standards such as FHIR and HL7 for insurance companies and other health IT focused persons. I designed and presented a full-stack application with the goal of being a data donation portal. This process included workflows and diagrams that included AWS services and a synthetic data generator.	
Jun 2021 — Aug 2021	Computational Data Science Intern, NASA - Glenn Research Center	Cleveland
	Internship with NASA under the direction of Dr. Herbert Schilling, supporting the Aeronautics Research Mission Directorate. I researched graph databases and data visualization tools to create a full-stack application and prototype for the Convergent Aeronautics Solutions project, which was determined to be needed for immediate use. I participated in outreach events, including an adult and children's library workshop in AI. I presented my research and findings to both internal and external groups, including the greater NASA library system and the NSF.	
Aug 2019 — Feb 2021	Study Abroad Assistant, Institute for Global Health - MSU College of Osteopathic Medicine	East Lansing
	Helped plan, organize, and develop international study abroad programs for residents in the College of Osteopathic Medicine and pre-medicine undergraduate students. Duties included utilization of mail-chimp, website creation, marketing and advertising content creation, social media management, and the planning and organization of travel itineraries and plans.	

COURSES TAUGHT

Jan 2025 — May 2025	Python Course, Michigan State University	East Lansing
	Developing a 1-credit, online, asynchronous statistical Python programming course with auto-grading. Students have the option to take it at a 14-week or 7-week pace with suggested due-dates for both. Utilizes GitHub Classroom, D2L, and Gradescope.	
Jan 2025 — May 2025	STT 811 - Applied Statistical Modelling for Data Scientists, Michigan State University	East Lansing
	<ul style="list-style-type: none">Adjusted the course to overlap less with other required courses in the MSDS program	
Aug 2024 — Dec 2024	STT 810 - Mathematical Statistics for Data Scientists, Michigan State University	East Lansing
	<ul style="list-style-type: none">Implemented a professional development dual-curriculum to the course.	
Aug 2024 — Dec 2024	STT 210 - Statistical Methods, Michigan State University	East Lansing
	<ul style="list-style-type: none">Redesigned the course for in-person instruction.	

Aug 2023 — May 2024

CSE 231 - Introduction to Python Programming 1, Michigan State University

East Lansing

Graduate Teaching Assistant - August 2023 - May 2024

Undergraduate Learning Assistant - August 2020 - May 2023

Total = 10 Semesters (incl. 2 Summer)

- Facilitated in-person and virtual group-lab sections of 7-40 students alone or with 1-2 other ULAs.
- Administered in-person and virtual exams with and without LockDown Browser.
- Utilized D2L course management software for entering student grades and feedback.
- Monitored student progress and provided intervention when necessary.
- Provided help room and office hours, both virtual and in-person.
- Facilitated virtual exam review sessions.
- Moderated Piazza class forum.
- Created projects, learning materials, supplemental videos, and surveys.
- Proof-read each project, and most exams, for consistency and appropriateness.
- Provided weekly check-ins, including a mental health-check-in during the COVID-19 pandemic.
- Provided insight and training for new TAs and ULAs.

SKILLS	Python (Programming Language)	Data Science & Data Visualization
	R/RStudio/Shiny (Programming Language & Software)	Statistics/Probability/Calculus
	AI/ML/NLP	Teaching & Instructional Design

LANGUAGES	English
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RESEARCH & PROJECTS

Jun 2024	STANZA with Spanish Clitics	MSU - Child Language Acquisition Lab
	Working on projects related to Spanish clitics, natural language processing, and the Stanford STANZA project. Future work will deal with the Tolerance Principle, and a more thorough analysis of syntax.	
Present	(Independant) Ethics & AI	
	<ul style="list-style-type: none">• A Hybrid Risk Account – Improving Koskinen’s Account of Applicable Objectivity• Autonomous Vehicle and Disability Project	
Aug 2023 — Present	Digital Humanities and Literary Cognition Lab	MSU - Cognitive Science/English
	<ul style="list-style-type: none">• Data Analyst for Music & Narrative related research studies	
2023	Kellogg Company - Capstone	MSU - CSE
	Senior capstone project for computer science, partnered with Kellogg Company (now Kellanova). My group was tasked with creating templates for the Global Data Science and Business team that were diverse and accessible for people with various needs. We utilized HTML, CSS, Javascript, and Bootstrap. Additionally, we researched WCAG 2.0 guidelines, along with user feedback and testing, for accessibility.	
Nov 2022 — Mar 2023	HAIL Lab	MSU - CSE
	<ul style="list-style-type: none">• AI Health Coaching Project• PyTorch & Keras Experience	
Aug 2020 — Aug 2022	Natural Language Processing / Computational Social Science Lab	MSU - CSE
	<ul style="list-style-type: none">• Undergraduate Honors Thesis• Climate Change Project	

Mandatory Generative AI Assignments

Implemented mandatory generative AI (LLM) assignments in STT 811. Planning to present a poster at USCOTS on students attitudes of the assignments and their perceived learning.

PRESENTATIONS & TALKS

Mar 2024	Graduate Academic Conference	MSU
	Oral Presentation : "A Hybrid Risk Account: Improving Upon Reliability (& Objectivity!) in Scientific Research"	
Mar 2024	Graduate Academic Conference	MSU
	Poster Presentation : "A Hybrid Risk Account – Improving Koskinen’s Account of Applicable Objectivity"	
Jun 2023	Panelist	Michigan Council for Women in Technology (MCWT)
	• Topic: ConnectNet: AI and ChatGPT	
2022	University Undergraduate Research and Arts Forum (UURAF)	MSU
	Oral & Poster Presentation - Undergraduate Thesis : "Measuring Cognitive Dissonance Following Climate Change: A Comparative Model in Differing Worlds"	

PUBLICATIONS

2025	(In Review) Driving Accessibility: Shifting the Narrative & Design of Autonomous Vehicle Systems for Persons with Disabilities through a Collaborative Scoring Rubric	
	Authors: Savanah Barnes & Maricarmen Davis	
2024	(In Review) The Friendly Argument Notation - Everywhere & Accessible (FAN-EA)	
	Authors: Savanah Barnes	
	NASA Technical Manuscript	
2024	(In Review) A Hybrid Risk Account – Improving Koskinen’s Account of Applicable Objectivity	
	Author: Savanah Barnes	
2023	(Student Paper) COPTERS: A Dataset for Climate-Related Sentiment Analysis	
	Authors: Andrew McDonald, Savanah Barnes, Abhinav Nadh Thirupathi, Tyler Lovell, Mohammad M. Ghassemi, and Kristen Johnson	
2022	(Undergraduate Thesis) Measuring Cognitive Dissonance – A Comparative Model in Differing Worlds	
	Authors: Savanah Barnes, Kristen Johnson, Susan Ravizza	
	Undergraduate Thesis	

SERVICE

2022 — 2023	Women in Engineering - Peer Mentor	
Jul 2021	Teaching Training Video Creator	MSU - COE
	Involved in the preparation and development of the Department of Computer Science Engineering TA training materials and videos	
Jul 2021	AI Workshop Coordinator	Cleveland Public Libraries
	Coordinated two workshops, one for adults and the other for children, in Artificial Intelligence while an intern at NASA. Provided age-appropriate activities through virtual, synchronous instruction.	
	Michigan Council for Women in Technology Website Judge	
	Judge (middle school and advanced high school) for website coding challenge presented by MCWT in 2023 and 2024.	

AWARDS & HONORS

May 2023	Annual Student Speaker - Executive Connection Summit	Michigan Council for Women in Technology (MCWT)
2020 — 2023	Scholar	MCWT
2019 — 2023	Michigan Competitive Scholarship	
2019 — 2023	Dean's List	MSU

REFERENCES

References available upon request