# Jakini Auset Kauba

jkauba@g.clemson.edu
jakofalltradestuto.wixsite.com/tutoring

## Education

| | |
|---|---|
| 2022 - Current | **Doctor of Philosophy**, *Clemson University, School of Mathematics and Statistical Sciences*<br>Funded by NSF LSAMP Bridge to Doctorate Fellowship HRD-2005030<br>Area of Study: Stochastic Processes<br>Anticipated Graduation Date: May 2027<br>Advisor: Dr. Keisha Cook |
| 2022 | **Master of Arts**, *The University of North Carolina - Greensboro*<br>Mathematics |
| 2020 | **Bachelor of Arts**, *The University of North Carolina - Greensboro*<br>Mathematics |
| 2019 | **Master of Science**, *North Carolina Agricultural and Technical State University*<br>Clinical Mental Health Counseling: Marriage and Family Therapy Certificate |
| 2017 | **Bachelor of Science**, North Carolina State University<br>Biological Sciences: Human Biology |

## Research Experience

| | |
|---|---|
| 2022 - 2023 | **The Institute for Computational and Experimental Research in Mathematics, Providence, RI -** *Data Science and Social Justice: Networks, Policy, and Education*<br>o Worked with data scientists, mathematicians, engineers, and local community partners developing new computational methods for quantitative social justice research |
| 2014 - 2017 | **National Institutes of Health, North Carolina State University, Raleigh, NC -** *Initiative for Maximizing Student Diversity*<br>o Conducted research on heart rate and lifespan trends<br>o Developed a Diversity Report Card for institutions of higher learning<br>o Presented at local and national symposiums such as the NC State Annual Undergraduate Research Symposium, MAPRS, and ABRCMS |

| 2016 | **Johns Hopkins University:** *Diversity Summer Internship Program* |
| --- | --- |
| | o Conducted research that analyzed the health disparities of African American men |

| 2011 | **NC ProjectSEED, North Carolina State University, Raleigh, NC** |
| --- | --- |
| | o Explored the enhancement of medical practices by studying nanobiosensor properties |

# Publications

- Christina Hoffman, **Jakini Kauba**, Julie Reidy, and Thomas Weighill. "Proportionality in multi-winner RCV elections: A simulation study with ballot truncation" (2023). Submitted to Communications in Statistics - Simulation and Computation.
- Ron Buckmire, Carrie Diaz Eaton, Joe E. Hidden, Jr., **Jakini Kauba**, Drew Lewis, Omayra Ortega, Jose' L. Pabon, Rachel Roca, Andres R. Vindas-Melendez, and Sam Zhang. "Quantifying Inequities and Documenting Elitism in PhD-granting Mathematical Sciences Departments in the United States" (2023). Submitted to The American Mathematical Monthly.
- **Jakini Kauba** and Thomas Weighill. "Topological analysis of U.S. city demographics" (2023). Submitted to La Matematica.

# Invited Talks

| 2023 | **MAA MathFest**, *A Topological Analysis of U.S. City Demographics* |
| --- | --- |

| 2022 | **International Conference on Advances in Interdisciplinary Statistics and Combinatorics**, *An Analysis of Demographic Trends Using Topological Data Analysis* |
| --- | --- |

# Conference Presentations

| 2023 | **Carolina Math Seminar** |
| --- | --- |
| | o Graduate Student Presentation: *A Topological Analysis of U.S. City Demographics* |
| | o Graduate Student Recruitment Presentation: *Why Grad School?* |

| 2023 | **NAM MATHFest** |
| --- | --- |
| | o Graduate Student Oral Presentation: *A Topological Analysis of U.S. City Demographics* |
| | o Graduate Student Speaker (Lightening Talk): *Building Your Village* |

| 2023 | **Joint Math Meeting** |
| --- | --- |

- o   Moderator/Panelist: Community Discussion on Quantitative Justice
    - Intersections of Mathematics, Data Science, and Social Justice
- o   Panelist: Re-envisioning Justice in Mathematics Research

2022        **NAM MATHFest**
- o   Panelist: Graduate School Panel (Students only)

# Academic Service

## Professional Memberships

| | |
|---|---|
| 2023 - Current | **Mathematical Association of America (MAA)** |
| 2022 - Current | **National Association of Mathematicians (NAM)** <br> *- Graduate Student Representative* |
| 2020 - Current | **American Mathematical Society (AMS)** |
| 2019 - Current | **Association for Women in Mathematics (AWM)** |

## Teaching Experience

2021 - Current        **JAK of All Trades Tutoring**, *Founder*
- o   Offer tutoring services in mathematics, chemistry, biology, and writing
- o   Develop tailored lesson plans and provide recorded lectures
- o   Create homework, quizzes, and other exams to ensure an understanding of material

2020 - 2022        **Graduate Teaching Assistant, University of North Carolina at Greensboro, Department of Mathematics and Statistics, Greensboro, NC**
- o   Tutored undergraduate students taking various math courses and provided guest lectures
- o   Assisted professors by grading homework assignments and quizzes

## Student Leadership

2020 -        **Graduate Student Recruiter**

| | |
|---|---|
| Current | o Serve on panels and give various informative talks educating and inspiring undergraduate students to pursue graduate education in mathematics<br>o Help create and organize extended recruitment events for underrepresented students interested in STEM graduate degrees (Stem ALL-IN and Men of Color)<br>o Serve as a moderator for panelists in government, industry, and academic professions by fostering more discussion questions for undergraduate students curious about the impact of obtaining a graduate degree<br>o Further normalize diversity in mathematics by providing research presentations in quantitative justice<br>o Review resumes, personal statements, and cover letters for undergraduate students seeking support for graduate school applications |
| 2023 - Current | **National Association of Mathematicians**: *Services and Special Projects Committee*<br>o Offer insight from the graduate student perspective in an effort to further enhance graduate student involvement and retention within NAM |
| 2023 | **Enhancing Diversity in Graduate Education (EDGE), Brown University, Providence, RI**<br>o Presented a Chalk Board Talk: *Optimal Separating Hyperplanes*<br>o Developed skills in various mathematical topics<br>o Further enhanced research presentation skills in addition to building a network of women mathematicians |
| 2022 - 2023 | **Black Graduate Student Association, Clemson University, Clemson, SC,** *Public Relations Chair*<br>o Organized events catered to elevating the graduate student experience<br>o Networked with faculty and staff members to arrange for guest speakers to encourage graduate students during their studies |
| 2021 - 2022 | **UNC-G Chapter of AWM**, *President*<br>o Organized and hosted events catered to women in mathematics<br>o Established an inclusive space for all who support women mathematicians<br>o Fundraised and further enhanced a collaborative community for all women mathematicians<br>o Scheduled meetings and semester retreats to maintain structure for all executive board members |
| 2021 | **Graduate Student Research Mentor** *(UNCG Statistics REU)*<br>o Served as a mentor to undergraduate students conducting statistics research<br>o Assisted undergraduate students in their development of mathematical writing skills<br>o Fostered the understanding of mathematical proofs as it related to coding methods in R Studio |