

HOLLY J. ROSSON-A Short Vita

Mathematics and Data Science Department
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Warren Wilson College
<https://hrosson.github.io/>

EDUCATION

Ph.D. in Mathematics, Dartmouth College, Hanover, NH, June, 2000.

TEACHING

Professor of Math and Data Science, Warren Wilson College, 2005-Present. **Chair:** 2019-2024

Taught courses including Data Science, Machine Learning, Statistics, Single and Multivariable Calculus, Linear Algebra, Mathematical Modeling and Number Theory.

RESEARCH INTERESTS

Historically, my research interests were in Number Theory. My current interests include mathematical modeling and data science, with applications to environmental sustainability and social justice.

SELECT CONFERENCES & AWARDS:

South Big Data Partnership Forum, Alexandria, Virginia. Fully funded by the **South Big Data Innovation Hub** to participate in the “**Smart Cities and the Environment**” session with big data influencers from industry, academia, nonprofits, and government. April, 2024. With poster presentation: “**An Application of Machine Learning to Health and Social Vulnerability Data**”.

South Big Data S.E.E.D.S. Grant, funded by the **South Big Data Innovation Hub** (\$10,000) to support data science students working on a project with the community partner Bounty and Soul. Fall, 2022-Spring 2024. With David Abernathy.

Data Matters, NC State University, Raleigh, NC. Participated in week-long workshops on data science for researchers, business and government professionals. Summers 2017, 2018, 2022, and 2023. Topics of study included R-Shiny (interactive dashboards), Machine Learning, Text Analysis, and Data Science with R.

Open Education North Carolina Faculty Grant, funded by NC Live (\$1000) to convert textbooks in the Calculus sequence to open resources only. Fall, 2018.

Research Experiences for Undergraduate Faculty on the Mathematics of Big Data, Duke University. Funded by the American Institute of Mathematics to participate in a week-long data science workshop. Summer, 2016.

PUBLICATIONS

Environmental and Social Advocacy Through Data, some Case Studies, in process.

Central Values of Quadratic Twists for a Modular Form of Weight 4, Ranks of Elliptic Curves and Random Matrix Theory, J. B. Conrey et al., eds, Cambridge University Press, February, 2007.

Theta Series of Quaternion Algebras over Function Fields, J. Number Theory, 94 (2002), 49-79.

SKILLS: R, Python, C, C++, SQL, HTML, Markdown, LaTeX