

Data Science and Social Justice in the Mathematics Community: Additional References and Resources

Quindel Jones*, Andrés R. Vindas Meléndez†, Ariana Mendible‡, Manuchehr Aminian§,
Heather Z. Brooks¶, Nathan Alexander‡, Carrie Diaz Eaton*, and Phil Chodrow††

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1 Additional References

DS4SJ Research

M.-V. Ciocanel, C. M. Topaz, R. Santorella, S. Sen, C. M. Smith, and A. Hufstetler. Justfair: Judicial system transparency through federal archive inferred records. *Plos One*, 15(10):e0241381, 2020

C. M. Smith, N. Goldrosen, M.-V. Ciocanel, R. Santorella, C. M. Topaz, and S. Sen. Racial disparities in criminal sentencing vary considerably across federal judges. *SocArXiv (July 2021)*, 2021

G. Wood, D. Roithmayr, and A. V. Papachristos. The network structure of police misconduct. *Socius*, 5: 2378023119879798, 2019

*Quindel Jones is a PhD candidate in systems modeling and analysis at Virginia Commonwealth University.

†Andrés R. Vindas Meléndez is an NSF postdoctoral scholar in the Department of Mathematics at the University of California, Berkeley.

‡Ariana Mendible is an assistant professor of mathematics at Seattle University.

§Manuchehr Aminian is an assistant professor of mathematics at California State Polytechnic University, Pomona.

¶Heather Zinn Brooks is an assistant professor of mathematics at Harvey Mudd College.

‡Nathan Alexander is an assistant professor of mathematics and data science at Morehouse College.

**Carrie Diaz Eaton is an associate professor of digital and computational studies at Bates College.

††Phil Chodrow is an assistant professor of computer science at Middlebury College. His email address is pchodrow@middlebury.edu.

E. Pierson, S. Corbett-Davies, and S. Goel. Fast threshold tests for detecting discrimination. In *International Conference on Artificial Intelligence and Statistics*, pages 96–105. PMLR, 2018

DS4SJ Pedagogy: Research and Practices

J. C. Garibay. STEM students’ social agency and views on working for social change: Are STEM disciplines developing socially and civically responsible students? *Journal of Research in Science Teaching*, 52(5):610–632, 2015

E. Tuck and K. W. Yang. Introduction: Born under the rising sign of social justice. In *Toward What Justice: Describing Diverse Dreams Of Justice In Education*. Routledge, Abingdon, 2018

W. Castillo and D. Gillborn. How to “quantcrit:” practices and questions for education data researchers and users. Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/v5kh-dd65>, 2022

A.-B. Hunter, S. L. Laursen, and E. Seymour. Becoming a scientist: The role of undergraduate research in students’ cognitive, personal, and professional development. *Science Education*, 91(1):36–74, 2007

A.-B. Hunter, E. Seymour, S. Laursen, H. Thiry, and

G. Melton. *Undergraduate research in the sciences: Engaging students in real science*. John Wiley & Sons, 2010

C. D. Eaton. Teaching machine learning in the context of critical quantitative information literacy. In *Proceedings of the Second Teaching Machine Learning and Artificial Intelligence Workshop*, pages 51–56. PMLR, 2022

The Process of DS4SJ

B. D. Vivona and M. S. Wolfgram. Conducting community based participatory action research. *Human Resource Development Review*, 20(4):512–521, 2021. doi: 10.1177/15344843211044003

N. Alexander, C. Diaz Eaton, A. H. Shrout, B. Tsinajinnie, and K. Tsosie. Beyond ethics: Considerations for centering equity-minded data science. *Journal of Humanistic Mathematics*, 12(2):254–300, 2022

2 Organizations

The [Institute for the Quantitative Study of Equity, Diversity, and Inclusion \(QSIDE\)](#)

[The Just Mathematics Collective](#)

3 Bibliographies and Compilations

The [2021 Workshop on Mathematics and Racial Justice](#) at MSRI compiled a [large list of suggested resources](#).

[Allison Miller](#) (Swarthmore College) has compiled a [list of resources on ethics in mathematics](#).