Joshua Rosenberg

Assistant Professor of STEM Education

Highlights

- **Researcher** drawing on and contributing to data science education, the learning sciences, and computing education
- **Author** of more than 40 journal articles in leading educational research and social science journals
- **Principal Investigator** for more than 4M in federally-funded research projects, including an National Science Foundation-funded project on combining human and machine-driven approaches to the analysis of classroom audiovisual data
- **Mentor** to graduate and undergraduate students in computer science, data science, and education
- **Data scientist** developing open-source software for learners and researchers

Professional Affiliation

2018-Present **Assistant Professor of STEM Education**, *University of Tennessee*, Knoxville, TN.

Education

2018 **PhD, Educational Psychology & Educational Technology**, *Michigan State University*, East Lansing, MI.

2012 **MA, Educational Technology**, *Michigan State University*, East Lansing, MI.

2010 **BS, Biology**, *University of North Carolina, Asheville*, Asheville, NC.

Awards and Fellowships (Selected)

2022 **Early Career Award**, *Technology as an Agent of Change Special Interest Group*, American Educational Research Association.

2021 **Best Poster Award**, *Best Poster Award*, International Conference on Educational Data Mining.

1328 Beacon Hill Ln., Knoxville, TN 37919
+1 865-236-1445 • *jmrosen48@gmail.com*
joshuarosenberg.com • *jrosenberg6432* • *jrosen48*

2021-2022 **Fellowship**, *Open Educational Resources (OER) Research*, William and Flora Hewlett Foundation.

Grants (Selected)

2019-2022 **PI**, *Understanding the development of interest in computer science: An experience sampling approach*, NSF ($348,688).

2019-2022 **Co-PI**, *Advancing computational grounded theory for audiovisual data from STEM classrooms*, NSF ($1,313,855).

Publications (Selected)

1. Rosenberg, J. M., Beymer, P. N., Anderson, D. J., Van Lissa, C., & Schmidt, J. A. (2019). tidyLPA: An r package to easily carry out latent profile analysis (LPA) using open-source or commercial software. *Journal of Open Source Software*, *3*(30), 978.
2. Rosenberg, J., Edwards, A., & Chen, B. (2020). Getting messy with data. *The Science Teacher*, *87*(5), 30–35.
3. Estrellado, R. A., Freer, E. A., Mostipak, J., Rosenberg, J. M., & Velásquez, I. C. (2020). *Data science in education using r*. Routledge. https://datascienceineducation.com/
4. Rosenberg, J. M., Lawson, M., Anderson, D. J., Jones, R. S., & Rutherford, T. (2020). Making data science count in and for education. *Research Methods in Learning Design and Technology*, 94–110. https://edarxiv.org/hc2dw/download?format=pdf
5. Lishinski, A., & Rosenberg, J. (2021). All the pieces matter: The relationship of momentary self-efficacy and affective experiences with CS1 achievement and interest in computing. *Proceedings of the 17th ACM Conference on International Computing Education Research*, 252–265. https://doi.org/10.1145/3446871.3469740
6. Rosenberg, J. M., Borchers, C., Dyer, E. B., Anderson, D., & Fischer, C. (2021). Understanding public sentiment about educational reforms: The next generation science standards on twitter. *AERA Open*, *7*, 23328584211024261. https://doi.org/10.1177/23328584211024261
7. Rosenberg, J. M., & Krist, C. (2021). Combining machine learning and qualitative methods to elaborate students' ideas about the generality of their model-based explanations. *Journal of Science Education and Technology*, *30*(2), 255–267. https://link.springer.com/article/10.1007/s10956-020-09862-4
8. Rosenberg, J. M., Burchfield, M., Borchers, C., Gibbons, B., Anderson, D., & Fischer, C. (2021). Social media and students' privacy: What schools and districts should know. *Phi Delta Kappan*, *103*(2), 49–53.
9. Kubsch, M., Krist, C., & Rosenberg, J. (2022). *Distributing epistemic functions and tasks - a framework for augmenting human analytic power with machine learning in science education research*. OSF Preprints. https://doi.org/10.31219/osf.io/sg9jk
10. Rosenberg, J., Kubsch, M., Wagenmakers, E.-J., & Dogucu, M. (2022). Making sense of uncertainty in the science classroom: A bayesian approach. *Science & Education*. https://doi.org/10.31219/osf.io/aznyq