Ritwick Mishra

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Current position

PhD Student, Computer Science, University of Virginia
Advised by Anil Vullikanti, Department of Computer Science & Biocomplexity Institute, University of Virginia

Research Interests

Algorithms, Combinatorial Optimization, Network Science, Graph Mining, and Machine Learning with applications to Epidemiology and Public Health.
Programming languages: Python, MATLAB

Education

01.2023 - 2026(exp)	PhD in Computer Science, University of Virginia
08.2021 - 12.2022	MS in Computer Science, University of Virginia, GPA: 3.91 (0-4 scale)
2015 - 2019	BTech in Computer Science, National Institute of Technology Karnataka, India, GPA: 7.79 (0-10 scale)

Publications

Mishra, R., Heavey, J., Kaur, G., Adiga, A., & Vullikanti, A. (2023). Reconstructing an Epidemic Outbreak Using Steiner Connectivity. *Proceedings of the AAAI Conference on Artificial Intelligence*, *37*(10), 11613–11620. https://doi.org/10.1609/aaai.v37i10.26372

Mishra, R., Eubank, S., Nath, M., Amundsen, M., & Adiga, A. (2023). Community Detection Using Moore-Shannon Network Reliability: Application to Food Networks. In H. Cherifi, R. N. Mantegna, L. M. Rocha, C. Cherifi, & S. Micciche (Eds.), *Complex Networks and Their Applications XI* (pp. 271–282). Springer International Publishing. https://doi.org/10.1007/978-3-031-21131-7_21

Mishra, R. (2022). *Reconstructing an Epidemic Outbreak using Steiner Connectivity* (MS Thesis). University of Virginia. https://doi.org/10.18130/MZXX-WM85

Mishra, R., Adiga, A., & Vullikanti, A. (under review). Reconstructing an epidemic under pooled testing.

Ma, J., Chen, C., Vullikanti, A., Mishra, R., Madden, G., Borrajo, D., & Li, J. (2023). A look into causal effects under entangled treatment in graphs: Investigating the impact of contact on mrsa infection. *Proceedings of the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, 4584–4594. https://doi.org/10.1145/3580305.3599763

Schoch, S., Mishra, R., & Ji, Y. (2023). Data selection for fine-tuning large language models using transferred shapley values. https://arxiv.org/abs/2306.10165

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