







Education

- Present  **Northwestern University**, PhD in Computer Science, Advised by Samir Khuller
- May 2024  **Swarthmore College, BA (Honors) in Mathematics and Computer Science**, 3.98 Major, 3.93 Overall
- May 2020  **New Trier High School**

Papers and Presentations




Submitted Papers

- 1 R. Dabas, S. Khuller, and E. Rivkin, "Capacitated partition vertex and edge cover," 2025.  DOI: 10.48550/ARXIV.2512.17844. arXiv: 2508.13055.
- 2 R. Dabas, S. Khuller, and E. Rivkin, "Facility location and k -median with fair outliers," 2025.  DOI: 10.48550/ARXIV.2508.02572. arXiv: 2508.02572.
- 3 J. Brody, P. Devlin, A. Dudeja, and E. Rivkin, "Evolution of locally dependent random graphs," 2024. arXiv: 2405.09489 [math.CO].  URL: <https://arxiv.org/abs/2405.09489>.
- 4 N. Ahmed, W. Ball, E. Buckminster, *et al.*, "Domains of convergence for polyhedral packings," 2021.


Presentations


- 1 E. Rivkin, "A larger class of effective dimension-preserving functions," in *Sigma Xi Poster Session*, 2023.
- 2 N. Ahmed, E. Rivkin, and J. Viscusi, "Domains of convergence for polyhedral packings," Student presentation at MAA MathFest, 2021.

Teaching Experience



- Fall 2025  **Teaching Assistant**, Northwestern University.
- Collaborated with instructors to design course materials (worksheets, homework, exams), ran weekly discussion sections, and hosted office hours for the Design and Analysis of Algorithms course.
 - Managed a team of undergraduate Peer Mentors.
- Sept 2022 – May 2024  **Math Clinician**, Swarthmore College.
- Ran a drop-in math clinic that assists students in all math courses.
 - Answered student questions about course material and homework.
 - Facilitated a collaborative learning environment.
- Jan 2023 – May 2024  **Computer Science Grader**, Swarthmore College.
- Provided feedback on lab assignments to students in Data Structures and Algorithms and Introduction to Computer Science.

Teaching Experience (continued)





- Spring 2022  **Linear Algebra Pirate**, Swarthmore College.
- Assisted the professor during class.
 - Ran a drop-in clinic for linear algebra students.
 - Learned pedagogical strategies to become a certified peer assistant.

- 2015 – 2021  **Private Tutor**.
- Assisted students in math ranging from pre-K through Calculus 1, chemistry, and physics.
 - Encouraged a positive relationship with math.









Skills

- Coding  \LaTeX , Julia, Python, C++, Stata, C.
- Languages  Native speaker in English, learning Czech from family, learned Spanish in a classroom setting.

Undergraduate Research Experience

- May 2023 – May 2024  **With Samir Khuller at the Northwestern Computer Science Department**. Studying scheduling problems related to university course schedules and writing approximation algorithms for graph coloring.
- Jan 2023 – June 2023  **With Neil Lutz at the Swarthmore College Computer Science Department**. Studying algorithmic information methods for bounding the fractal dimensions of projected sets.
- May – Aug 2022  **With Will Perkins at the University of Illinois at Chicago**. In a supervised independent project, studied applications of probability in graph theory and formulated an approach to an open problem with Erdős-Renyi graphs.
- May – July 2021  **With Ian Whitehead at the Swarthmore College Mathematics Department**. Studied the fractal dimensions of various polyhedral circle packings by coding algorithms to approximate the dimensions.

Honors and Awards

- 2025  Peter and Adrienne Barris Outstanding Teaching Assistant, Northwestern University.
- 2024  Cabell Fellowship, Northwestern University.
- 2023  Cilento Technology Fund, Swarthmore College.
- 2021  MAA Outstanding Student Paper Session Presentation Award.
-  Francis Velay Women's Science Research Fellowship, Swarthmore College.
-  Morris Monsky Prize in Mathematics, Swarthmore College.
- 2020  National Merit Scholar Finalist
-  Spanish Honor Society