

Anakin Dey

Curriculum Vitæ

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Research Interests

Algebraic Combinatorics, Algebraic and Geometric Complexity Theory, Computational Algebra

Education

Fall 2024 — **PhD Mathematics**, *The Ohio State University*

Spring 2030

Fall 2020 — **BSLAS Mathematics**, *University of Illinois Urbana-Champaign*

Spring 2024 Minor in Computer Science

Graduation with Highest Distinction

Publications

2025 **Debordering Closure Results in Determinantal and Pfaffian Ideals**

Anakin Dey and Zeyu Guo

Innovations in Theoretical Computer Science 2026, [ECCC](#)

2025 **Optimizing a Model-Agnostic Measure of Graph Counterdeceptiveness via Reattachment**

Anakin Dey, Sam Ruggerio, Manav Vora, and Melkior Ornik

IEEE Cyber Awareness and Research Symposium 2025, [arXiv](#)

2024 **Classifying Primitive Solvable Permutation Groups of Rank 5 and 6**

Anakin Dey, Kolton O'Neal, Duc Van Khanh Tran, Camron Upshur, and Yong Yang

Journal of Group Theory, [Degruyter](#)

2022 **Post-Disaster Repair Crew Assignment Optimization Using Minimum Latency**

Anakin Dey and Melkior Ornik

IEEE International Smart Cities Conference 2022, [IEEE](#)

Invited Talks

2024 **Classifying Primitive Groups using Computer Algebra and Change Making**

China-US Group Theory Summit 2024

2023 **Classifying Primitive Groups using Computer Algebra and Change Making**

UIUC Department of Mathematics Undergraduate Friday Seminars

2023 **Classifying Primitive Solvable Permutation Groups of Rank 5 and 6**

China Three Gorges University Algebra and Combinatorics Seminar

2022 **Post-Disaster Repair Crew Assignment Optimization Using Minimum Latency**

IEEE International Smart Cities Conference 2022

Research Experience

- Spring 2024* **Undergraduate Research Assistant**, [ICLUE](#)
Under Prof. Alexander Yong, University of Illinois Urbana-Champaign
- Summer 2023* **Undergraduate Research Assistant**, [REU in Algebra, Combinatorics, and Statistics](#)
Under Prof. Yong Yang, Texas State University
- Fall 2021 — Fall 2023* **Undergraduate Research Assistant**, [LEADCAT Lab](#)
Under Prof. Melkior Ornik, University of Illinois Urbana-Champaign

Student Organizations

- Spring 2025 — Current* **Vice President**, [OSU MGSA](#)
Ohio State University Math Graduate Student Association
- Fall 2022 — Spring 2024* **Founder and President**, [ACM SIGma](#)
Special Interest Group in Math and Algorithms
- Fall 2021 — Spring 2024* **Admin**, [ACM SIGPwny](#)
Special Interest Group in Cybersecurity

Teaching Experience

- Fall 2025 — Current* **Graduate Teaching Associate**, The Ohio State University
- Math 1151 — Calculus I
(*Fall 2025*)
- Spring 2021 — Spring 2024* **Undergraduate Course Assistant**, University of Illinois Urbana-Champaign
- CS 225H — Honors Data Structures
(*Spring 2024*)
 - CS 374 — Introduction to Algorithms and Models of Computation
(*Spring 2022 — Fall 2022, Fall 2023*)
 - CS 173 — Discrete Structures
(*Spring 2021 — Spring 2024*)
 - CS 475 — Models of Computation
(*Spring 2023*)
 - CS 125 — Introduction to Computer Science
(*Spring 2021*)

Professional Experience

- Summer 2022* **Software Engineering Intern**, *CME Group*
- Summer 2021* **Software Engineering Intern**, *SitelQ*