

# Anakin Dey

## Curriculum Vitæ

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🌐 www.anakin.phd

### 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 2025

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* — **Undergraduate Research Assistant**, [LEADCAT Lab](#)

*Fall 2023* Under Prof. Melkior Ornik, University of Illinois Urbana-Champaign

## Student Organizations

*Spring 2025* – **Vice President**, [OSU MGSA](#)

*Current* Ohio State University Math Graduate Student Association

*Fall 2022* – **Founder and President**, ACM [SIGma](#)

*Spring 2024* Special Interest Group in Math and Algorithms

*Fall 2021* – **Admin**, ACM [SIGPwny](#)

*Spring 2024* Special Interest Group in Cybersecurity

## Teaching Experience

*Fall 2025* – **Graduate Teaching Associate**, The Ohio State University

*Current*

- Math 1151 — Calculus I  
(*Fall 2025*)

*Spring 2021* – **Undergraduate Course Assistant**, University of Illinois Urbana-Champaign

*Spring 2024*

- 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**, [SitelIQ](#)