Anakin Dey

Curriculum Vitæ

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🌐 *www.anakin.phd*

Research Interests

Algebraic Combinatorics, Algebraic Complexity, Computational Algebra, Algebraic Geometry, Commutative Algebra

Education

Fall 2024 —
Spring 2030
PhD Mathematics, *The Ohio State University*

Fall 2020 —
Spring 2024
BSLAS Mathematics, *University of Illinois Urbana-Champaign*
Minor in Computer Science
Graduation with Highest Distinction

Publications

2025 **Debordering Closure Results in Determinantal and Pfaffian Ideals**
Anakin Dey and Zeyu Guo
Submitted

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, 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**, *SiteIQ*