Anakin Dey

Curriculum Vitæ

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🌐 *www.anakin-dey.com*

Research Interests

Algebraic Combinatorics, Algebraic Geometry and Commutative Algebra, Computational Algebra, Algebraic and Fine-Grained Complexity, Algebraic Methods in Combinatorics, Combinatorial Optimization

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
GPA: 3.92 / 4.00, Graduation with Highest Distinction
Deans List: Fall 2020, Fall 2021, Spring 2023, Fall 2023

Publications

2023 **Optimizing a Model-Agnostic Measure of Graph Counterdeceptiveness via Reattachment**
Anakin Dey, Sam Ruggerio, and Melkior Ornik
Submitted, arXiv:2311.15093

2023 **Classifying Primitive Solvable Permutation Groups of Rank 5 and 6**
Anakin Dey, Kolton O'Neal, Duc Van Khanh Tran, Camron Upshur, and Yong Yang
Accepted Journal of Group Theory, arXiv:2308.13043

2022 **Post-Disaster Repair Crew Assignment Optimization Using Minimum Latency**
Anakin Dey and Melkior Ornik
IEEE International Smart Cities Conference 2022, arXiv:2206.00597

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

Founder and President, *ACM SIGma*
Special Interest Group in Math and Algorithms

Admin, *ACM SIGPwny*
Special Interest Group in Cybersecurity

Teaching Experience

Spring 2021 –	**Undergraduate Course Assistant**, University of Illinois Urbana-Champaign
Spring 2024	○ CS 225H — Honors Data Structures

Spring 2024	Course Assistant

○ CS 374 — Introduction to Algorithms and Models of Computation

Spring 2022 — Fall 2022	Course Assistant
Fall 2023	Course Assistant

○ CS 173 — Discrete Structures

Spring 2021 — Spring 2022	Course Assistant
Fall 2022 — Spring 2024	Head Course Assistant

○ CS 475 — Models of Computation

Spring 2023	Course Assistant

○ CS 125 — Introduction to Computer Science

Spring 2021	Course Assistant

Professional Experience

Summer 2022	**Software Engineering Intern**, *CME Group*
Summer 2021	**Software Engineering Intern**, *SiteIQ*