Anakin Dey

Curriculum Vitæ

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 — PhD Mathematics, The Ohio State University

Spring 2030

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

Spring 2024 Minor in Computer Science

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

Publications

- 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, 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

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

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

Spring 2024 $\,\,\,\,\,\,\,\,\,$ CS 225H — Honors Data Structures

Spring 2024 Course Assistant

 \circ 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

 $\,\circ\,$ 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, SitelQ