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Education:

2023–Present	University of Nebraska Lincoln PhD Candidate in Mathematics Advised by Eloísa Grifo and Jack Jeffries
2023–2025	University of Nebraska Lincoln MS in Mathematics
2021–2023	Indian Institute of Technology Madras M.Sc. in Mathematics
2016–2019	Ramakrishna Mission Vivekananda College, Chennai B.Sc. in Mathematics

Research Interests:

My research interests are in commutative algebra and homological algebra and their intersections with algebraic geometry. More particularly, my interests include arithmetic rank, local cohomology, modules of finite length and finite projective dimension, and cohomological support varieties.

Publications and Preprints:

1. The arithmetic rank of the residual intersections of a complete intersection ideal, with Manav Batavia, Taylor Murray, and Vaibhav Pandey, to appear in *International Mathematics Research Notices*, 20 pp., arXiv:2510.17049
2. Lifting systems for finite length modules, with Benjamin Katz, Nawaj KC, Andrew J. Soto Levins, and Ryan Watson, 19 pp., arXiv:2602.01440
3. Cohomological support varieties for monomial ideals, with Kara Fagerstrom, Julianne Faur, Benjamin Katz, Stephen Stern, and Ryan Watson, 32 pp., arXiv:2605.29103

Honors and Awards:

2023 - 2025	UNL Chancellor's Fellowship
2022 - 2023	IITM Merit Scholarship

Service and Organization:

- Co-organizer: UNL Directed Reading Program, 2025 – Present.
- Co-organizer: UNL Summer Commutative Algebra Reading Seminar, Summer – 2024, 2025, 2026.
- Co-organizer: Virtual Commutative Algebra and Algebraic Geometry Seminar, 2024 – 2026.
- Co-organizer: UNL Commutative Algebra and Adjacent Book-club Session, Spring 2026.
- Co-organizer: UNL Cohomology Club, Fall 2025.
- Co-organizer: UNL Commutative Algebra Reading Seminar, Spring 2024
- Co-organizer: IIT Madras Commutative Algebra Student Seminar, June – July 2023.

- Co-organizer: FORAYS 2023, a school and undergraduate students outreach program in IIT Madras, February 2023.

Mentoring:

- Led a directed reading project with an undergrad at UNL on *representation theory of finite groups*, Spring 2026.

Invited Talks:

April 2026	AMS Central Sectional Meeting, Fargo, Iowa: <i>The arithmetic rank of residual intersections of a complete intersection ideal</i>
April 2026	Graduate student/Algebra seminar, Knoxville, Tennessee: <i>The arithmetic rank of residual intersections of a complete intersection ideal</i>
December 2025	IIT Madras Mathematics Special Seminar, Chennai: <i>The arithmetic rank of residual intersections of a complete intersection ideal</i>
November 2025	Purdue Student Algebra Seminar, virtual: <i>Lifting systems for finite length modules</i>
October 2025	Colegio De Matemáticos Del Peru, virtual: <i>The arithmetic rank of residual intersections of a complete intersection ideal</i>

Internal Talks:

March 2026	UNL Graduate Student Seminar: <i>Differential operators on polynomial rings</i>
March 2026	UNL RTG Learning Seminar: <i>Regularity of modules over a Koszul algebra</i>
March 2026	UNL Commutative Algebra Reading Seminar: <i>A topological approach to compute the arithmetic rank</i>
December 2025	UNL Cohomology Club: <i>An introduction to Čech cohomology</i>
October 2025	UNL Graduate Student Seminar: <i>Algebras with a Straightening Law</i>
October 2025	UNL Commutative Algebra Seminar: <i>The arithmetic rank of residual intersections of a complete intersection ideal</i>
September 2025	UNL Commutative Algebra Reading Seminar: <i>A stratification by F-pure threshold</i>
July 2025	UNL Commutative Algebra Reading Seminar: <i>Measuring singularities with Frobenius</i>
May 2025	UNL Commutative Algebra Reading Seminar: <i>Arithmetic rank and cohomological dimension in commutative algebra</i>
March 2025	UNL Graduate Student Seminar: <i>DG algebra resolutions</i>
March 2025	UNL Big CMinar: <i>Direct summand conjecture in mixed characteristic</i>
July 2024	UNL Commutative Algebra Reading Seminar: <i>A Zariski-Nagata theorem for smooth \mathbb{Z}-algebras</i>
June 2024	UNL Commutative Algebra Reading Seminar: <i>An introduction to symbolic powers</i>
February 2024	UNL Commutative Algebra Reading Seminar: <i>Adams operations in commutative algebra</i>
September 2023	UNL Graduate Student Seminar: <i>An introduction to Schur polynomials</i>
June 2023	IITM Commutative Algebra Student Seminar: <i>An introduction to homological algebra</i>

Teaching Experience:

Instructor of record, *University of Nebraska, Lincoln*

Fall 2025	Math 103 – College Algebra and Trigonometry
Spring 2025	Math 102 – Trigonometry
Fall 2024	Math 102 – Trigonometry

Teaching Assistant, *University of Nebraska, Lincoln*

Spring 2026	Math 208 – Calculus III
Summer 2024	Math 106 – Calculus I
Spring 2024	Math 107 – Calculus II
Fall 2023	Math 106 – Calculus I

Conferences/Programs Attended:

July 2026	Singularities in Commutative Algebra through Cohomological methods in SLMath
May 2026	Pan-American School in Commutative Algebra 2.0 in CIMAT, Mexico
April 2026	A Celebration of Golod's Mathematical Legacy in Coventry, UK
April 2026	AMS Spring Central Sectional Meeting in Fargo, North Dakota
March 2026	CA+ in Ames, Iowa.
December 2025	PL - Commutative algebra and modular representation theory in Chennai, India
October 2025	KUMUNU in Columbia, Missouri
October 2025	AMS Fall Central Sectional Meeting in Saint Louis, Missouri
August 2025	Summer CAMP 2.0 (Commutative Algebra Market Preparedness) in Lincoln, Nebraska
June 2025	Singularities in Algebra and Geometry in Guanajuato, Mexico
June 2025	An Introduction to Recent Trends in Commutative Algebra in Toronto, Canada
May 2025	URiCA (Upcoming Researchers in Commutative Algebra) in Lincoln, Nebraska
April 2025	Rayfest in Lincoln, Nebraska
March 2025	Commutative algebra in mixed characteristic in Lincoln, Nebraska
December 2024	AIS - Cohomology of Commutative Algebras in Chennai, India
September 2024	KUMUNU in Columbia, Missouri
July 2024	BRIDGES in Salt Lake City, Utah
May 2024	URiCA (Upcoming Researchers in Commutative Algebra) in Lincoln, Nebraska
April 2024	Recent Developments in Commutative Algebra in MSRI/SLMath, Berkeley, California
April 2024	TAGS: Syzygies over Texas in College Station, Texas
January 2024	Introductory Workshop: Commutative Algebra in MSRI/SLMath, Berkeley, California
January 2024	Connections Workshop: Commutative Algebra in MSRI/SLMath, Berkeley, California
November 2023	GEMS in Minneapolis, Minnesota
October 2023	AMS Sectional Meeting in Omaha, Nebraska
September 2023	KUMUNU in Columbia, Missouri
August 2023	BrianFest in Lincoln, Nebraska
August 2023	Summer CAMP (Commutative Algebra Market Preparedness) in Lincoln, Nebraska