

Ish Shah

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Research interests

Harmonic analysis and its interactions with related fields, including analytic number theory and partial differential equations.

Education

Incoming **Ph.D. in Mathematics**, University of Illinois Urbana-Champaign.
2022–2026 **B.S. in Mathematics** (highest honors), Rutgers University.
GPA: 4.0. Minor in Computer Science.

Papers

Publications *Shimura lifts of nearly holomorphic modular forms.*
Joint with Abby Linscott, Tianyu Ni, and Hui Xue.
Internat. J. Math., 37(07), 2026.
Pointwise ergodic theorems along fractional powers of primes.
Joint with Erik Bahnson, Leonidas Daskalakis, and Abbas Dohadwala.
Int. Math. Res. Not. IMRN, 2025(15), 2025. arXiv: 2412.07055.

Research talks and presentations

Sep. 2025 *Shimura lifts of almost holomorphic modular forms.*
Number Theory Seminar, Rutgers University (New Jersey, USA).
Jul. 2025 *A Selberg identity for nearly holomorphic modular forms.*
12th Annual Summer Undergraduate Research Symposium, Clemson University
(South Carolina, USA).
Jul. 2024 *When Fourier analysis meets ergodic theory and number theory.*
DIMACS REU, Rutgers University (New Jersey, USA).

Awards

Apr. 2026 **Graduate Research Fellowship Program Honorable Mention** (National Science Foundation).
Apr. 2026 **Kenneth and Rosalind Wolfson Annual Award for Academic Excellence in Mathematics** (Department of Mathematics, Rutgers University).
Nov. 2025 **Alan Marc Schreiber Memorial Scholarship** (School of Arts and Sciences, Rutgers University). Also awarded in Jan. 2025 and Feb. 2024.
Sep. 2025 **Maurice M. and Adrienne R. Weill Scholarship** (Department of Mathematics, Rutgers University). Also awarded in Aug. 2024.
Jan. 2025 **Rutgers College Scholarship** (School of Arts and Sciences, Rutgers University).
Dec. 2024 **Goldwater Scholarship Nomination** (Office of Distinguished Fellowships, Rutgers University).

Sep. 2024 **Excellent TA/PTL/Grader Award** (Department of Computer Science, Rutgers University).

Service and outreach

2025–2026 **President**, Rutgers Undergraduate Mathematics Association.
2025–2026 **Lecturer**, Rutgers Competitive Programming.
2026 **Workshop Instructor**, Rutgers University Security Club.
2024–2025 **Public Relations Officer**, Rutgers Undergraduate Mathematics Association.

Teaching

Any roles below this line were completed at Rutgers University as an undergraduate student.

Spring 2026 **CS 344 (Algorithms)**, Part-Time Lecturer/Teaching Assistant.
CS 112 (Data Structures), Learning Assistant.
Fall 2025 **CS 111 (Introduction to Computer Science)**, Learning Assistant.
Spring 2025 **CS 344 (Algorithms)**, Part-Time Lecturer/Teaching Assistant.
Math 152 (Calculus II), Learning Assistant.
Fall 2024 **CS 344 (Algorithms)**, Part-Time Lecturer/Teaching Assistant.
Math 152 (Calculus II), Learning Assistant.
Spring 2024 **CS 344 (Algorithms)**, Part-Time Lecturer/Teaching Assistant.
CS 112 (Data Structures), Learning Assistant.
Fall 2023 **BAIT 370 (Management Information Systems)**, Learning Assistant.