

Ashwin Padaki

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EDUCATION

University of Pennsylvania

Ph.D in Computer and Information Science

Philadelphia, PA

2024 – 2029 (*expected*)

Advised by Sanjeev Khanna and Erik Waingarten.

Columbia University

B.A. in Computer Science, Mathematics

New York, NY

2020 – 2024

GPA: 4.06/4

PUBLICATIONS

(authors ordered alphabetically by last name)

- Sanjeev Khanna, **Ashwin Padaki**, Erik Waingarten. [Sparse Navigable Graphs for Nearest Neighbor Search: Algorithms and Hardness](#).
SODA 2026
- Sanjeev Khanna, **Ashwin Padaki**, Krish Singal, Erik Waingarten. A Polynomial Space Lower Bound for Diameter Estimation in Dynamic Streams.
FOCS 2025
- Henry Fleischmann, Kyrylo Karlov, Karthik C. S., **Ashwin Padaki**, Styopa Zharkov. [Inapproximability of Maximum Diameter Clustering for Few Clusters](#).
SODA 2025
- Josh Alman, Yunfeng Guan, **Ashwin Padaki**. [Smaller Low-Depth Circuits for Kronecker Powers](#).
SODA 2023

SELECTED WORK EXPERIENCE

Graduate Teaching Assistant

University of Pennsylvania

Aug 2025 – present

Philadelphia, PA

- Algorithms for Big Data (Fall 2025).

Teaching Assistant

Columbia University

Sep 2022 – Dec 2023

New York, NY

- Cryptography (Fall 2023), Computational Complexity (Spring 2023), Real Analysis (Fall 2022).

Quantitative Trader Intern

Optiver

Jun 2022 – Aug 2022

Chicago, IL

- Developed, backtested, and implemented high-frequency trading strategies for stock options.

TALKS

- Sparse Navigable Graphs for Nearest Neighbor Search (DIMACS/Rutgers Theory Seminar) *Nov 2025*
- Sparse Navigable Graphs for Nearest Neighbor Search (CMU Theory Seminar) *Sep 2025*
- Inapproximability of Maximum Diameter Clustering for Few Clusters (SODA 2025). *Jan 2025*

SERVICE

Mentor	Sep 2023 – Dec 2023
<i>Columbia Undergraduate Learning Seminar in Theoretical Computer Science</i>	<i>New York, NY</i>
<ul style="list-style-type: none">Organized and taught a seminar on Boolean function analysis for undergraduate students.	

ACHIEVEMENTS

National Science Foundation (NSF) Graduate Research Fellow	2024
Phi Beta Kappa Inductee	2024
Putnam Mathematical Competition, Top 500 Scorer	2022