

EDUCATION

Georgetown University

PhD in Computer Science

– Advisor: Alexander Golovnev

Washington DC, USA

Fall 2023–Current

Georgetown University

Masters in Computer Science, CGPA: 3.79/4.00

– Thesis: “Circuit Lower Bounds via Substitutions”

– Advisor: Alexander Golovnev

Washington DC, USA

Fall 2021–Spring 2023

College of Engineering, Pune

B.Tech in Metallurgy and Materials Science, CGPA: 6.68/10

– Thesis: “Piezoelectricity in AlN bulk ceramics”

Pune, India

2017–2021

RESEARCH INTERESTS

Circuit Lower Bounds, Randomness Extraction.

PUBLICATIONS

- [1] A. Golovnev, Z. Guo, P. Hatami, S. Nagargoje, and C. Yan, “Hilbert functions and low-degree randomness extractors”, in *RANDOM*, 2024.
- [2] K. Gajulapalli, A. Golovnev, S. Nagargoje, and S. Saraogi, “Range avoidance for constant-depth circuits: Hardness and algorithms”, in *RANDOM*, 2023.

RESEARCH VISITS

Georgetown University

Research Assistantship

– Proved circuit lower bounds in $AC^0[p]$ model for MAJ using a different measure.

– Worked on the Range Avoidance Problem

– Advisor: Alexander Golovnev

Washington DC, USA

Dec 2021- Jun 2023

Ohio State University

Research Assistant

– Hilbert functions and Low Degree Randomness Extractors

– Advisor: Pooya Hatami

Ohio, USA

May 2023- August 2023

National University of Singapore (NUS)

Research Assistant

– Two Source Extractors

– Advisor: Divesh Aggarwal

Singapore

June 2024- November 2024

TEACHING ASSISTANTSHIP

COSC-240: Introduction to Algorithms

Georgetown University

Spring 2022

COSC-240: Introduction to Algorithms

Georgetown University

Fall 2022

INVITED TALKS

Range Avoidance for Constant Depth Circuits: Hardness and Algorithms

Georgetown University

Spring 2023

Washington DC, USA

Hilbert Functions and Low-Degree Randomness Extractors

RANDOM 2024

September 2024

London, UK

Hilbert Functions and Low-Degree Randomness Extractors

NUS Theory Seminar

October 2024

Singapore

RELATED COURSES

- Discrete Mathematics
- Algorithms
- Theory of Computation
- Computational Complexity
- Coding Theory
- Algebra and Computation
- Linear Algebra
- Applied Algorithms
- Graduate Gems of Theoretical Computer Science
- Cryptography