Vishvajeet N

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Research

I am broadly interested in Theoretical Computer Science. My current research interests include Streaming Algorithms, and Pseudorandomness.

Education

Rutgers University **2017 - 2022 (expected)**

- Ph. D candidate in Computer Science
- Advisor: Prof. Swastik Kopparty

Indian Institute of Technology Madras **2012 - 2017**

- Bachelor and Master of Technology
- Master's Thesis Advisor: Prof. Radhakrishna Ganti
- Master's Thesis: Optimization of Mechanical Systems via Lasserre Hierarchy of Semidefinite Programming Relaxations

Publications

Graph Streaming Lower Bounds for Parameter Estimation and Property Testing via a Streaming XOR Lemma
Sepehr Assadi and **Vishvajeet N**, 2021.
Symposium on Theory of Computing (**STOC 2021**)

Internships

Microsoft Research, India **May - Aug 2016**

- Mentor: Dr. Satya Lokam
- Area: Analysis of Boolean Functions, Sensitivity Conjecture
- Worked towards extending the approach of relating higher moments of sensitivity and degree of a general function to bounding decision-tree depth in terms of higher moment of sensitivity

Tata Institute of Fundamental Research, Mumbai, India **May - Oct 2015**

- Mentor: Prof. Prahladh Harsha
- Area: Coding Theory
- Surveyed Arikan's capacity-achieving deterministic coding schemes and fresh results surrounding the capacity-achieving capabilities of Reed-Muller codes, as part of the *Visiting Students' Research Program*
- Wrote an article on the area: *Codes That Achieve Capacity on Symmetric Channels* (arXiv:1510.01439[cs.IT]).

Workshops Attended

Workshop on Algorithms for Large Data **Aug 2021**

- Online

Monthly Meeting of the Simons Collaboration on Algorithms and Geometry **2019/2020**

- Flatiron Institute, NYC

Interactive Complexity **Oct 2018**

- Simons Institute for the Theory of Computing, Berkeley

Workshop on Local Algorithms **June 2018**

- MIT, Cambridge

Sublinear Algorithms, Local Algorithms and Robust Statistics **June 2018**
- MIT, Cambridge

Avi Wigderson is 60 - A Celebration of Mathematics and Computer Science **Oct 2016**
- Institute for Advanced Study, Princeton

Teaching Experience

I have been a teaching assistant for the following courses:

Introduction to Discrete Structures II (CS 206) **Spring 2021**
Introduction to Discrete Structures I (CS 205) **Spring 2020**
Design and Analysis of Computer Algorithms (CS 344) **Fall 2019**
Introduction to Calculus I (MATH 135) **Spring 2019**
Design and Analysis of Data Structures and Algorithms (CS 513) **Fall 2018**
Introduction to Discrete Structures II (CS 206) **Spring 2018**
Design and Analysis of Data Structures and Algorithms (CS 513) **Fall 2017**

References

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