

# VISHVAJEET N

Princeton, USA

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<https://nvishvajeet.github.io>

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## RESEARCH

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

## EDUCATION

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|--|------------------------|
| <b>Rutgers University</b>  | 2017 - 2022 (expected) |
| <ul style="list-style-type: none"><li>- Ph. D candidate in Computer Science</li><li>- Advisor: Prof. Swastik Kopparty</li></ul>  |                        |
| <b>Indian Institute of Technology (I.I.T) Madras</b>   | 2012 - 2017            |
| <ul style="list-style-type: none"><li>- Bachelor and Master of Technology</li><li>- Master's Thesis Advisor: Prof. Radhakrishna Ganti</li><li>- Master's Thesis: Optimization of Mechanical Systems via Lasserre Hierarchy of Semidefinite Programming Relaxations</li></ul> |                        |

## PUBLICATIONS

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*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

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| <b>Microsoft Research, India</b>   | May - Aug 2016 |
| <ul style="list-style-type: none"><li>- Mentor: Dr. Satya Lokam</li><li>- Area: Analysis of Boolean Functions, Sensitivity Conjecture</li><li>- 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</li></ul>  |                |
| <b>Tata Institute of Fundamental Research, Mumbai, India</b>   | May - Oct 2015 |
| <ul style="list-style-type: none"><li>- Mentor: Prof. Prahladh Harsha</li><li>- Area: Coding Theory</li><li>- Surveyed Arikan's capacity-achieving deterministic coding schemes and fresh results surrounding capacity achieving capabilities of Reed-Muller codes, as part of the <i>Visiting Students' Research Program</i></li><li>- Wrote an article on the area: "Codes That Achieve Capacity on Symmetric Channels." arXiv:1510.01439[cs.IT]</li></ul> |                |

## WORKSHOPS ATTENDED

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| <b>Workshop on Algorithms for Large Data</b>   | Aug 2021  |
| <ul style="list-style-type: none"><li>- Online</li></ul>   |           |
| <b>Monthly Meeting of the Simons Collaboration on Algorithms and Geometry</b>                            | 2019/2020 |
| <ul style="list-style-type: none"><li>- Flatiron Institute, NYC</li></ul>                                |           |
| <b>Interactive Complexity</b>  | Oct 2018  |
| <ul style="list-style-type: none"><li>- Simons Institute for the Theory of Computing, Berkeley</li></ul> |           |
| <b>Workshop on Local Algorithms</b>  | June 2018 |
| <ul style="list-style-type: none"><li>- MIT, Cambridge</li></ul>   |           |

**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

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I have been a teaching assistant for the following courses:

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

## REFERENCES

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### **Swastik Kopparty**

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Department of Mathematics and  
Department of Computer Science,  
University of Toronto,  
Toronto, Canada.  
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### **Sepehr Assadi**

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