

# Mano Vikash Janardhanan

## Curriculum Vitae

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## Education

- 2014-Present **Ph.D., Department of Mathematics, Statistics, and Computer Science, (in progress), University of Illinois at Chicago,**  
Advisor: Prof. Lev Reyzin.
- 2009-2014 **Integrated MS, Mathematics, Indian Institute of Science Education and Research,**  
Thiruvananthapuram, Kerala.

## Research Interests

I am currently exploring research at the intersection of computer science and graph theory. In particular, I work on the algorithmic aspects of graph learning problems. I have recently started working in graph anomaly detection problems. My areas of interest include machine learning, data science and algorithms.

## Experience

### Research

- 2017 May- **PhD Thesis Research**, University of Illinois at Chicago.  
Present - In this project, I am working on developing measures to classify graphs and using these measures to find anomalies in dynamic graphs.  
- Advised by Prof. Bhaskar DasGupta
- 2016 May- **PhD Thesis Research**, University of Illinois at Chicago.
- 2017 August - In this project, I worked on a query-model for graph learning and graph verification. [1]  
- Advised by Prof. Lev Reyzin
- 2015 August- **Independent Study**, University of Illinois at Chicago.
- 2016 May - In this project, I worked on a passive model for learning graphs using subgraph connectivity constraints. [2]  
- Advised by Prof. Lev Reyzin.
- 2013 August- **MS Thesis Research**, IISER, Thiruvananthapuram.
- 2014 May - *Topics in Ramsey Theory*  
- In this project, I used the probabilistic method to find lower bounds for some Ramsey-type functions. [3, 4]  
- Advised by Prof. Sujith Vijay.

## Teaching

- 2014- Present **Teaching Assistant and Lecturer**, University of Illinois at Chicago.
- Led discussion sections for various computer science and mathematics courses. (MCS 401, 275 and MATH 090, 180, 210)
  - SEW Lecturer during summer 2015.

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## Awards and Honours

- 2013 CSIR-NET (national level exam for PhD candidates in India) - 2nd rank  
2013 Shyama Prasad Mukherjee Fellowship  
2009 INSPIRE Scholarship for Higher Education

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## Computer Skills

I have worked in many programming languages including Python, C, C++, Mathematica and Matlab. I am also good in typesetting languages like  $\text{\LaTeX}$ .

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## Publications

- M. V. Janardhanan. Graph verification using a betweenness oracle. *Algorithmic Learning Theory*, 2017 (to appear).
- M. V. Janardhanan Y. Huang and L. Reyzin. Network construction with connectivity constraints. 2017 (submitted).
- M. Vikash Janardhanan. Topics in ramsey theory [arxiv e-prints (1404.7348)]. Master's thesis, Indian Institute of Science Education and Research, Thiruvananthapuram, April 2014.
- M. Vikash Janardhanan and S. Vijay. Ramsey functions for generalized progressions. *Integers*, 15, 2015.