

# Ishan Agarwal

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## EDUCATION

- *PhD (Computer Science)*,  
**Courant Institute of Mathematical Sciences, New York University** Aug, 2018 – Aug, 2023 (expected)
- *Bachelor of Science (Research), First Class, Major – Mathematics*  
**Indian Institute of Science** Aug, 2014 – May, 2018

## PUBLICATIONS

### Papers

- **Stable Matching: Choosing Which Proposals to Make** in submission  
*Ishan Agarwal and Richard Cole.*
- **Selecting a Match: Exploration vs Decision** (working paper) CoRR  
*Ishan Agarwal, Richard Cole, and Yixin Tao.*
- **Nearly Optimal Embeddings of Flat Tori** APPROX 2020  
*Ishan Agarwal, Oded Regev, and Yi Tang.*

### Theses

- **Undergraduate Thesis**  
**(UG Thesis) On three colourability of triangulations of planar point sets** May, 2018  
*with Dr. Sathish Govindarajan, CSA, Indian Institute of Science*

## TALKS AND PRESENTATIONS

### Talks

- **Stable Matching: Choosing Which Proposals to Make** May, 2022  
*NYU CS "Pandemic Presentations"*
- **A Novel Value and Time Based Matching Model** August, 2020  
*online*
- **Nearly Optimal Embeddings of Flat Tori** November, 2020  
*APPROX 2020*

### Poster Presentations

- **Stable Matching: Choosing Which Proposals to Make** July, 2022  
*EC 2022*
- **Selecting a Match: Exploration vs Decision** July, 2021  
*EC 2021*
- **Cake-cutting in novel settings** April, 2018  
*CSA, Indian Institute of Science, Bangalore*
- **Extracting knowledge from WordNet: Artifacts and their roles** August, 2017  
*Brandeis University Science Fest VII, Brandeis University*

## ACADEMIC ACHIEVEMENTS

- **Mac Cracken Fellowship, 2018 – present:** 5-year fellowship from New York University for doctoral students at the Courant Institute.
- **KVPY SX Scholarship, 2014 – 2018:** Scholarship awarded by Department of Science and Technology, Govt. of India, for ~500 (out of 150,000 applicants) students studying basic science, as undergraduates. Ranked 97 nationally.
- **All India Rank 5 (of ~9000 participants) in the Madhava Mathematics Competition, 2015:** An olympiad style competition for mathematics undergraduates.

## TEACHING

### Training

- **Preparing Future Faculty 2: Achieving Success through Communication** Jan, 2023 – May, 2023  
Elective course for PhD students at NYU in preparation for a future role as faculty.
- **Preparing Future Faculty: The Art and Craft of Teaching** Sept, 2022 – Dec, 2022  
Elective course for PhD students at NYU in preparation for a future role as faculty.
- **Teachtalks and pedagogy workshops** 2021-2022  
Attended numerous talks given by distinguished teachers as well as pedagogy workshops organized regularly at NYU.
- **Teacher Training Workshop** Sept, 2019  
Mandatory training for recitation leaders and course assistants at NYU.

### Experience

- **Course Assistant and Recitation Leader: Basic Algorithms, NYU** Jan, 2023 – May, 2023  
Teaching the recitation classes for the course and helping to design exams and assignments. Also co-ordinating with graders and tutors and scheduling make-up exams and addressing students concerns and queries online. This is a core course for undergraduate students.
- **Recitation Leader: Basic Algorithms, NYU** Jan, 2022 – May, 2022  
Taught the recitation classes for the course and helped design exams and assignments. This is a core course for undergraduate students.
- **Tutor and Grader: Honors Analysis of Algorithms, NYU** Sept, 2020 – Dec, 2020  
Graded the course assignments and held office hours. This is a required course for all CS PhD students.
- **Recitation Leader: Basic Algorithms, NYU** Sept, 2019 – Dec, 2019  
Taught the recitation classes for the course and helped design exams and assignments
- **Grader: Theory of Computation, NYU** Jan, 2019 – May, 2019  
Graded the course assignments and held office hours. This is an elective theory course for senior undergraduate students.
- **Course Assistant: Basic Algorithms, NYU** Sept, 2018 – Dec, 2018  
Designed the course assignments and participated in guiding students during recitations.
- **Teaching Assistant: E0 244: Computational Geometry and Topology, IISc** Jan, 2018 – April, 2018  
Graded the course assignments and held office hours. This is an elective theory course primarily for graduate students.
- **Teaching Assistant (Programming lab): UE 101: Algorithms and Programming, IISc** Aug, 2017 – Nov, 2017  
Guided students in the programming lab sessions, evaluated the lab assignments and invigilated for lab exams. This is an introductory first course for freshman undergraduates.
- **Volunteer Peer Educator, with the NGO'S: CINI ASHA and Save The Children** 2012 – 2014  
Taught basic English and mathematics to underprivileged children. Received the **Pramerica Spirit of Community Silver Medal** for exceptional service.

## ENGLISH PROFICIENCY: STANDARDIZED TESTS

- **TOEFL: 117/120** May, 2017
- **GRE: 340/340 (General)** Dec, 2016

## REFERENCES

- **Dr. Richard Cole**  
*Professor, Courant Institute of Mathematical Sciences,  
New York University, NYC*  
cole@cs.nyu.edu
- **Dr. Oded Regev**  
*Professor, Courant Institute of Mathematical Sciences,  
New York University, NYC*  
regev@cims.nyu.edu
- **Dr. Subhash Khot**  
*Professor, Courant Institute of Mathematical Sciences,  
New York University, NYC*  
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