APOORV VIKRAM SINGH

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RESEARCH

My research interests lie at the intersection of computer science and statistical machine learning. Currently, I am working on problems in the area of spectral algorithms, clustering, and algorithms & lower-bounds for graph spectrum estimation.

EDUCATION

New York University, Tandon School of Engineering
Ph.D. Student in Computer Science   Sept 2020 - Present
Advisor: Christopher Musco

International Institute of Information Technology, Bangalore
Integrated Masters of Technology   Aug 2013 - July 2018
Information Technology, Specialization: Theoretical Computer Science
Thesis: Clustering Perturbation Resilient Instances
Advisor: G. Srinivasaraghavan

EXPERIENCE

Visiting Researcher, INRIA Lille   Oct 2019 - Jan 2020
MODAL Team, INRIA Lille, France
Advisor(s): Hemant Tyagi (INRIA), Mihai Cucuringu (Univ. of Oxford)

Project Associate, IISc Bangalore   Aug 2018 - Aug 2019
Department of CSA, Indian Institute of Science (IISc)
Advisor(s): Anand Louis (IISc), Amit Deshpande (Microsoft Research)

Narendra Summer Intern, IISc Bangalore   Summer 2017
Department of CSA, Indian Institute of Science
Advisor: Anand Louis

PUBLICATIONS

1. **Regularized Spectral Methods for Clustering Signed Networks**
   (with Mihai Cucuringu, Deborah Sulem, and Hemant Tyagi)
   JMLR 2021, (Link)

2. **On Euclidean k-Means Clustering with α-Center Proximity**
   (with Amit Deshpande and Anand Louis)
   AISTATS 2019, (Link)

3. **Approximation Algorithms for Cost-Balanced Clustering**
   (with Amit Deshpande, Anand Louis, and Deval Patel)
   Preprint 2019, (Link)

TEACHING

. **E0306: Deep Learning, Theory and Practice**   Spring 2019
Grader for the course at IISc Bangalore

. **E0203: Spectral Algorithms**   Spring 2018
Grader for the course at IISc Bangalore

NYU COURSES

Probability Theory 1 & 2	Concentration of Measure	Info Thy Methods in Stats
Intro to Analysis 2	Algorithmic ML & DS	Mathematical Statistics
Advanced ML	Bayesian ML	Inference & Representation