Vedant **Nanda**

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Education

Maryland-Max Planck joint program
MD, USA and Saarbrücken, Germany

Ph.D. in Computer Science
2019 - present

- First year Ph.D. student studying Fairness, Transparency and Interpretability in Machine Learning.
- TA for CMSC 320 (Intro to Data Science)

Indraprastha Institute of Information Technology (IIIT) Delhi
New Delhi, India

B.Tech. in Computer Science and Engineering
2015 - 2019

- **GPA: 9.47/10**, in top 5% of institute
- Part of dean's list for academic excellence for all years
- Selected Coursework: Numerical Methods, Calculus-I, Calculus-II, Machine Learning, Collaborative Filtering, Information Retrieval, Anthropology of Social Media, Network Administration, System Administration, Designing Human-Centered Systems

Research Interests

Human-centered Machine Learning
Fairness and Explainability in Machine Learning
Societal Aspects of Artifical Intelligence
Adversarial Machine Learning
Mechanism Design and Game Theory
Stochastic Optimization

Publications

Balancing the Tradeoff between Profit and Fairness in Rideshare Platforms during High-Demand Hours
AAAI

Vedant Nanda, Pan Xu, Karthik A. Sankararaman, John P. Dickerson, Aravind Srinivasan
2020

Unifying Model Explainability and Accuracy Through Reasoning Labels
Workshop on Safety and Robustness in Decision Making , NeurIPS

Vedant Nanda, Junaid Ali, Krishna P. Gummadi, Muhammad Bilal Zafar
2019

On the Long-term Impact of Algorithmic Decision Policies: Effort Unfairness and Feature Segregation through Social Learning
ICML

Hoda Heidari *, Vedant Nanda *, Krishna P. Gummadi
2019

Stop the KillFies! Using Deep Learning Models to Identify Dangerous Selfies
MSM Workshop, WWW

Vedant Nanda, H.Lamba, D.Agarwal, M.Arora, N.Sachdeva, P.Kumaraguru
2018

Leveraging Facebook's Free Basics Engine for Web Service Deployment in Developing Regions
ICTD

S.Singh*, Vedant Nanda*, R.Sen, S.Sengupta, P.Kumaraguru, K.P.Gummadi
2017

Empirical Analysis of Facebook's Free Basics
SIGMETRICS (poster)

S.Singh*, Vedant Nanda*, R.Sen, S.Ahmad, S.Sengupta, A.Phokeer, Z.A.Farooq, T.A.Khan, P.Kumaraguru, I.A.Qazi, D.Choffnes, K.P.Gummadi
2017

* Co-first authorship

Honors & Awards

2018	Best TA award for Data Structures and Algorithms given by the institute. Core computer science course taught to 300+ freshmen.
2018	Selected for SN Bose scholars program, to spend summer'18 at a US university. Awarded to only 50 undergrad and masters students across India. Deferred in favor of internship at MPI-SWS.
2018	Selected for MPI-SWS internship program.
'16, '17, '18	Dean's List for academic excellence.
'16, '17, '18	Received Chairman Merit scholarship of Rs. 100,000.
2015	Secured the prestigious KVPY scholarship, awarded to brilliant young scientists across India.
2015	Secured an All India Rank of 804 in JEE mains out of 1.5 million candidates.

PhD Coursework

1. **CMSC 726: Machine Learning**
   Fall 2019 by Dr. Soheil Feizi

   Exploring a notion of fairness based on the difficulty of adversarial attacks on Deep Neural Networks (DNNs).

2. **CMSC 723: Computational Linguistics I**
   Fall 2019 by Dr. Hal Daumé III

   Exploring adversarial attack on NLP models.

Skills

Advanced	Python, Numpy, Pytorch, Pandas, Django, Java, Android Studio, C/C++, Git
Medium	Matplotlib, Keras, Tensorflow, HTML, CSS, LaTeX, SQL, NoSQL
Basic	R, JavaScript, jQuery, Ionic Framework, MATLAB/Octave, SVN

References

1. **Dr. Krishna P. Gummadi**
   Scientific Director
   MPI-SWS

2. **Dr. John P. Dickerson**
   Assistant Professor
   University of Maryland, College Park