

Vedant Nanda

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Education

University of Maryland & MPI-SWS

MD, USA & SB, Germany

PH.D. IN COMPUTER SCIENCE

2019 - now

- SECOND YEAR PH.D. STUDENT WORKING ON TRUSTWORTHY MACHINE LEARNING.
- TA FOR CMSC 320 (INTRO TO DATA SCIENCE)
- GPA: 4.0/4.0
- ADVISORS: KRISHNA P. GUMMADI (MPI-SWS) AND JOHN P. DICKERSON (UNIVERSITY OF MARYLAND)

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
Mechanism Design

Conference Publications

Fairness Through Robustness: Investigating Robustness Disparity in Deep Learning

FAccT (formerly FAT*)

VEDANT NANDA*, SAMUEL DOOLEY*, SAHIL SINGLA, SOHEIL FEIZI, JOHN P. DICKERSON

2021

* EQUAL CONTRIBUTION

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

ALSO PRESENTED AT AIES (ORAL)

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

* EQUAL CONTRIBUTION

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

* EQUAL CONTRIBUTION

Workshops and Posters

Unifying Model Explainability and Robustness via Reasoning Labels

Workshop on Safety and Robustness
in Decision Making, NeurIPS

VEDANT NANDA, JUNAID ALI, KRISHNA P. GUMMADI, MUHAMMAD BILAL ZAFAR

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

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,

2017

D.CHOFFNES, K.P.GUMMADI

* EQUAL CONTRIBUTION

Honors & Awards

2019-20	Dean's Fellowship awarded by University of Maryland.
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.

Service

Reviewer	ASONAM 2019, WWW 2020, ICWSM 2020, AAAI 2021
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PhD Coursework

1. CMSC 764: Advanced Numerical Optimization

SPRING 2020 BY DR. TOM GOLDSTEIN

GRADE: A

2. CMSC 828M: Applied Mechanism Design for Social Good

SPRING 2020 BY DR. JOHN P. DICKERSON

GRADE: A

3. CMSC 726: Machine Learning

FALL 2019 BY DR. SOHEIL FEIZI

PROJECT: SHOWED ROBUSTNESS BIAS IN REAL-WORLD MODELS. PAPER FROM PROJECT CURRENTLY UNDER REVIEW. GRADE: A

4. CMSC 723: Computational Linguistics I

FALL 2019 BY DR. HAL DAUMÉ III

PROJECT: ADVERSARIAL ATTACKS ON NLP MODELS. GRADE: A

Skills

ML	Python, Numpy, Pytorch, Pandas, Keras, Tensorflow
Other	Matplotlib, Django, Java, Android Studio, C/C++, Git, R, MATLAB, SVN

References

1. Dr. Krishna P. Gummadi

SCIENTIFIC DIRECTOR

MPI-SWS

2. Dr. John P. Dickerson

ASSISTANT PROFESSOR

UNIVERSITY OF MARYLAND, COLLEGE PARK