

Vedant Nanda

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Education

University of Maryland & Max Planck Institute for Software Systems

MD, USA & SB, Germany

PH.D. IN COMPUTER SCIENCE

2019 - now

- SECOND YEAR PH.D. STUDENT IN UMD-MPI JOINT PROGRAM WORKING ON TRUSTWORTHY MACHINE LEARNING.
- GPA: 4.0/4.0; TA FOR CMSC 320 (INTRO TO DATA SCIENCE), FALL 2019
- 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

Research Interests

Fairness, Explainability and Robustness in Machine Learning

Conference Publications

Enhancing Model Robustness via Machine-Checkable Concepts

Under Review

VEDANT NANDA, TILL SPEICHER, JOHN P. DICKERSON, KRISHNA P. GUMMADI, MUHAMMAD BILAL ZAFAR

2021

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,
D.CHOFFNES, K.P.GUMMADI

2017

* 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, WWW 2021, CVPR 2021
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PhD Coursework

- CMSC 634: Empirical Research Methods in Computer Science**
FALL 2020 BY PROF. MICHELLE MAZUREK, GRADE: A
- CMSC 828I: Advanced Techniques in Visual Recognition and Learning**
FALL 2020 BY PROF. ABHINAV SHRIVASTAVA, GRADE: A+
- CMSC 764: Advanced Numerical Optimization**
SPRING 2020 BY PROF. TOM GOLDSTEIN, GRADE: A
- CMSC 828M: Applied Mechanism Design for Social Good**
SPRING 2020 BY PROF. JOHN P. DICKERSON, GRADE: A
- CMSC 726: Machine Learning**
FALL 2019 BY PROF. SOHEIL FEIZI, GRADE: A
- CMSC 723: Computational Linguistics I**
FALL 2019 BY PROF. HAL DAUMÉ III, GRADE: A

Skills

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

References

- Prof. Krishna P. Gummadi**
SCIENTIFIC DIRECTOR
MAX PLANCK INSTITUTE FOR SOFTWARE SYSTEMS
- Prof. John P. Dickerson**
ASSISTANT PROFESSOR, COMPUTER SCIENCE
UNIVERSITY OF MARYLAND, COLLEGE PARK