# Swapneel Mehta

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## **EDUCATION**

#### **NEW YORK UNIVERSITY**

PHD IN DATA SCIENCE (exp) Aug 2023 | New York, NY Cum. GPA: 3.8/4

#### **MUMBAI UNIVERSITY**

BENG IN COMPUTER SCIENCE June 2018 | Mumbai, India Cum. GPA: 9.23/10

# **COURSEWORK**

#### **DOCTORAL**

Machine Learning
Causal Inference
Inference and Representation
Math Tools for Data Science
Big Data
Probability and Statistics
(Instructor, funded by Google Research)
Unicode ML Summer School

#### **UNDERGRADUATE**

Artificial Intelligence
Graph Theory
Machine Learning
Operating Systems
Database Management Systems
Computer Networks + Labs
Computer Graphics + Labs
(Co-founder, FOSS Training Program)
Unicode

# **AWARDS**

2023	Google Research Innovator
2023	WSDM Smart City Challenge
2020	IRIS-HEP Fellowship
2020	Oxford MLHEP Challenge
2018	<u> </u>
2018	India's Top 33 Engineers,

# **SKILLS**

Python, Pytorch • MySQL • Bash • R GCP • BigQuery • Unix/Linux • Git S3 • Docker • LAMP • SLURM HTML/CSS • Javascript • C++ • Java

# LINKS

Github://swapneelm Twitter://@swapneel\_mehta YouTube://swapneel\_mehta

#### **EXPERIENCE**

#### FOUNDER | SIMPPL

Dec 2021 - Present | New York, NY

- Developing tools to identify multimodal disinformation operations by coordinated networks on social media platforms. Global south misinformation.
- Civic Integrity Products: Parrot Report, SimPPL
- Clients: VTDigger, Yale Daily News, Sunday Times, Deutsche Welle (summary)
- Selected as a **Google Research Innovator**; awarded USD 35,000 in grants from AWS, Google, the **Wikimedia Foundation**, and the **NYC Media Lab**

#### **CERN, CMS EXPERIMENT** | TSP RESEARCHER (ML)

March 2018 - July 2019 | Geneva, Switzerland

- Developed graph neural networks for particle track reconstruction at the LHC
- Productionized the **DeepJet** ML framework; won awards from Google, Oxford.

#### NYU, CSMAP | GRADUATE RESEARCHER

Feb 2021 - Present | New York, NY

- Identify the causal effect of feedback on low quality news posts on Reddit.
- Identify the causal impact of Twitter's warning labels on Trump's tweets (Stanford Trust & Safety Research Conference).
- Infectious disease modeling with probabilistic programs (MIT PROBPROG '21).

# INTERNSHIPS

#### TWITTER, CIVIC INTEGRITY | Machine Learning Engineer

June 2022 - Aug 2022 | New York, NY

• Improved the precision of their civic and health misinfo. classifier (BigQuery ML) by 20% scoring 1M+ tweets / week. NLP; recommender systems.

#### OXFORD, TORR VISION GROUP | VISITING RESEARCHER

Aug 2021 – June 2022 | Oxford, UK

• Generative modeling of adversarial agent behaviors on Reddit recommendations presented in workshops at ICML and DEFCON, 2022.

#### **ADOBE RESEARCH** | Data Science Research Intern

May 2020 - Dec 2020 | New York, NY

- Trending Hashtag Recommendation for Videos; NLP, language models, data mining, weakly-supervised learning, multimodal graph neural networks.
- First-author paper accepted at IEEE ISM; U.S. Patent App P10634-US.

#### IIT BOMBAY, MICROSOFT | RESEARCH INTERN

May 2016 - May 2017 | New York, NY

- **Prof. S. Sahasrabudhe**, Automated evaluation of Blender 3D Modeling assignments (ICALT 2018); edX Prize Finalist, 2019.
- Microsoft Research: Google Analytics for the Lokacart D2C app for farmers.

# SMOKESCREEN (ACQ. ZSCALER) | CYBERSECURITY / ML INTERN Nov 2016 - March 2017 | New York, NY

- Reducing the footprint of network scans and building Markov-chain based hostname generation for intelligent decoys.
- Automated deployment of NASSCOM-DSCI awarded IllusionBlack software.

#### REVIEWER

- 2023 **AABI**
- 2023 ICLR, AI4ABM Workshop
- 2023 Al+Local News Challenge
- 2022 AISTATS
- 2022 ICML, AI4ABM Workshop
- 2022 NeurIPS, WBRC
- 2019 Elsevier JPDC

# **ORGANIZING**

- 2023 Al, Misinfo. & Policy Seminar
- 2023 ICLR AI4ABM Workshop
- 2023 Misinfo. Village, DEFCON
- 2023 NYU Al School 2023
- 2022 NeurIPS WBRC
- 2022 NYU AI School 2022
- 2022 Al for Everyone, C+J 2022
- 2021 NYU AI School 2021
- 2021 Unicode ML Summer School

# **TALKS**

- 2023 McKinsey Guest Talk
- 2023 MIDAS Future Leaders Summit (Responsible AI)
- 2023 CCNY SASE "TED Talks"
- 2023 MozFest by Mozilla
- 2023 NYU Data Science Seminar
- 2023 **Deutsche Welle** (multiple)
- 2023 NYC Media Lab
- 2022 Graphika
- 2022 Truth and Trust Online Conf.
- 2022 Twitter, Health ML
- 2022 MIT Media Lab
- 2022 Stanford, T&S Research Conf.
- 2022 NYU Graduate Seminar
- 2022 Misinfo. Village, DEFCON
- 2022 Oxford, Torr Vision Group
- 2021 Twitter, Cortex
- 2021 Facebook, Probability
- 2021 Flatiron Comp. Bio. Group
- 2020 NYC Al Workshop
- 2020 NYU Data Science
- 2018 Mumbai University (multiple)

# **PUBLICATIONS**

- [1] S. Mehta, J. Bisbee, Z. Sanderson, R. Bonneau, J. Tucker, and J. Nagler. **Identifying the Causal Effects of Twitter's Interventions on Trump's Tweets**. *Working Paper*, 2023.
- [2] S. Mehta, K. Aslett, R. Bonneau, J. Tucker, and J. Nagler. Identifying the Causal Effects of Feedback Reduction on Posts containing Low-Quality News on Reddit. *Working Paper*, 2023.
- [3] S. Mehta, A. G. Baydin, R. Bonneau, J. Nagler, and P. Torr. Estimating the Impact of Coordinated Inauthentic Behavior on Content Recommendations in Social Networks. In ICML 2022 Workshop AI for Agent-Based Modelling, 2022.
- [4] S. Mehta, S. Sarkhel, X. Chen, S. Mitra, V. Swaminathan, R. Rossi, A. Aminian, H. Guo, and K. Garg. Open-domain Trending Hashtag Recommendation for Videos. In IEEE International Symposium on Multimedia (ISM), 2021.
- [5] S. Mehta and N. Kasmanoff. Covid-19 Modeling and Control via Policy Interventions. In *International Conference on Probabilistic Programming (PROBPROG)*, pages https-probprog, 2021.
- [6] D. Gandhi, R. Jain, J. Gala, J. Lalwani, and S. Mehta. Expanding access to ml research through student-led collaboratives. In *NeurIPS 2022 Workshop on Broadening Research Collaborations*, 2022.
- [7] A. Ganeriwalla and S. Mehta. Application of ols regression and var models to analyse the economies of varying political regimes. *Journal of Student Research*, 10(4), 2021.
- [8] S. Mehta, P. Kothuri, and D. L. Garcia. A big data architecture for log data storage and analysis. In *Integrated Intelligent Computing, Communication and Security*, pages 201–209. Springer, Singapore, 2018.
- [9] S. Mehta, C. Raman, N. Ayer, and S. Sahasrabudhe. Auto-grading for 3d modeling assignments in moocs. In 2018 IEEE 18th International Conference on Advanced Learning Technologies (ICALT), pages 51–53. IEEE, 2018.
- [10] S. Mehta, P. Kothuri, and D. L. Garcia. Anomaly detection for network connection logs. arXiv preprint arXiv:1812.01941, 2018.
- [11] S. Mehta, M. Verzetti, J. Kieseler, and M. Stoye. Deepjet: A machine learning environment for high-energy physics. 2018.
- [12] M. Feickert, M. Paganini, S. Mehta, K. Cranmer, J. Low, D. Guest, B. Stienen, S. Templ, R. Di Sipio, M. Stoye, et al. iml-wg/hep-ml-resources: 2019. 2020.
- [13] J. Kieseler, M. Stoye, M. Verzetti, P. Silva, S. Mehta, A. Stakia, Y. Iiyama, E. Bols, S. Qasim, H. Kirschenmann, et al. Deepjetcore. *Zenodo, doi*, 10, 2020.

## **GRANTS**

2023	Wikimedia Foundation 'WikiCred' Grant	USD 10,000
2023	Deutsche Welle	EUR 4,950
2022	GCP, AWS, Algovera Research Grants	USD 9,000
2022	JournalismAl	USD 2,000
2022	The Sunday Times	USD 2,000
2021	UK Research & Innovation Grant (w/ Oxford TVG)	GBP 23,000
2021	NYC Media Lab AI + Local News Challenge	USD 7,500
2021	Google Research India	INR 85,000