

Dhruv Agarwal

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RESEARCH INTERESTS

Responsible AI, Human-AI Interaction, Human-Centered NLP

EDUCATION

Cornell University | ITHACA, USA

PhD, Information Science | 2022–Present

Advisor: Aditya Vashistha

Ashoka University | INDIA

BS, Computer Science | 2016–2020

CGPA: [3.84](#) / 4.0 | Major: [3.98](#) / 4.0 | **Magna cum laude**

Thesis: Incentivizing Drivers to Collect Off-Route Pollution Data

EXPERIENCE

Google Research | STUDENT RESEARCHER

Feb 2025 – Present | New York, USA

- Investigating fairness in image models.

Accenture Labs | AI RESEARCH INTERN

Jun 2024 – Aug 2024 | San Francisco, USA

- Built an LLM-powered interface to help general readers understand scientific papers.
- Investigated racial bias in AI models. Found models trained outside the US show lesser bias.
- Logit-level evaluations of GPT, LLaMA, Mistral, and their instruction-tuned variants.

Microsoft Research | PRE-DOCTORAL RESEARCHER

Jun 2020 – Jul 2022 | Bangalore, India

- Developed Turn2Earn, a novel way of improving data coverage using vehicular crowdsensing.
- Mixed-effects modeling of air pollution using wind dispersion models and NASA pollutant data.
- Developed PollutionMapper, a system to analyze large-scale geospatial data and visualize it.

Microsoft Research | RESEARCH INTERN

May 2019 – Aug 2019 | Bangalore, India

- Designed a greedy algorithm to maximize city coverage for drive-by sensing.
- Library open-sourced by Microsoft: github.com/microsoft/Modulo

Mirabilis Design | SOFTWARE ENGINEERING INTERN

Dec 2018 – Jan 2019 | Chennai, India

- Generated execution traces of ARM executables from QEMU source code for VisualSim software.

TECHNICAL SKILLS

Python • PyTorch • HuggingFace • JavaScript
React • MongoDB • Flask

C/C++ • PHP • Bash • Git • SQL • Android
Photoshop • Raspberry Pi • Arduino • \LaTeX

PUBLICATIONS

- Let's Talk it Out: Mitigating Social Bias in LLMs using Agentic Dialogue
D. Agarwal. [in progress]
- AI Suggestions Homogenize Writing Toward Western Styles and Diminish Cultural Nuances.
D. Agarwal, M. Naaman, A. Vashistha. ACM CHI 2025.

3. 'One Style Does Not Regulate All': Moderation Practices in Public and Private WhatsApp Groups. F. Shahid, **D. Agarwal**, A. Vashistha. ACM CSCW 2025.
4. Conversational Agents to Facilitate Deliberation on Harmful Content in WhatsApp Groups. **D. Agarwal**, F. Shahid, A. Vashistha. ACM CSCW 2024.
5. "If it is easy to understand then it will have value": Examining Perceptions of Explainable AI with Community Health Workers in Rural India. ACM CSCW 2024. **D. Agarwal***, C. T. Okolo*, N. Dell, A. Vashistha.
6. PollutionMapper: Identifying Global Air Pollution Sources. ACM COMPASS 2023. **D. Agarwal**, P. Kumar, S. Iyengar.
7. India's "Aadhaar" Biometric ID: Structure, Security, and Vulnerabilities. Financial Crypto 2022. **D. Agarwal***, P.R. Tiwari*, P. Jain, S. Dasgupta, D. Gupta. (21% acceptance rate)
8. Understanding Driver-Passenger Interactions in Vehicular Crowdsensing. ACM CSCW 2021. **D. Agarwal**, S. Agarwal, V. Singh, S. Iyengar, M. Jain. [Methods Recognition Award](#).
9. Modulo: Drive-by Sensing at City-scale on the Cheap. ACM COMPASS 2020. **D. Agarwal**, S. Iyengar, M. Swaminathan, et al. [Best Paper Award](#).
10. Poster: An Alternative to India's Reservation Policy. ACM COMPASS 2020. D. Sinha, O. Sahasrabudhe, **D. Agarwal**, D. Gupta.
11. Poster: System for Vehicle Selection in Drive-by Sensing. ACM SenSys 2019. **D. Agarwal**, S. Iyengar, M. Swaminathan.

AWARDS AND RECOGNITION

Quad Fellowship (\$50k)
Cornell University Fellow
Winner – Edge Computing Track
Undergraduate Research Excellence Award
Student Life Excellence Award
Dean's List – All 8 Semesters
Alok Bhatla True Marian Award

Schmidt Futures 2023
 Cornell University 2022
 Microsoft Global Hackathon 2021
 CS@Ashoka, 2020
 Ashoka University, 2020
 Ashoka University, 2016–2020
 High School, 2016

SERVICE

Reviewer – ACM CHI	2023–2025
Reviewer – ACM CSCW	2023–2025
Reviewer – ACM COMPASS	2021–2024

MEDIA COVERAGE

The Hindu

Ola, Microsoft to analyse street-level air quality

The Business Insider

Ola and Microsoft come together to measure air quality on the streets of India's national capital

The Economic Times

Ola partners with Microsoft Research to study street-level air quality in Delhi-NCR

SELECTED COURSEWORK

Math	Discrete Math • Probability & Statistics • Linear Algebra
Systems	Computer Organization • OS • PLDI (PLs) • Networks
Theory	Algorithms • Advanced Algorithms • Theory of Computation
Security	Computer Security • Blockchain
AI/ML	Intro to ML • Advanced ML • Unstructured Information • NLP • Advanced LLMs
HCI	Data Viz • New Geographies of Information Age • ICTD
TA	Intro to ML • Discrete Math • HCI

PAST PROJECTS

Exploring Human Bias in FIFA Ratings

Prediction of football players' future FIFA ratings from their previous ratings and on-ball actions.

Fake News Challenge

An NLP approach to the Stance Detection problem using a novel “staged” technique.

Beating Facial Obfuscation with ML

Convolutional autoencoder to recreate blurred, pixelated or blocked facial images.

COVID-19 Multilingual Knowledgebase

FAQ website to combat misinformation surrounding the crisis in local Indian languages.

VAHN: Vehicle Accident Hazard Notifier

A real-time smart city system for automatic detection and reporting of road accidents.

Ashoka Menu and Shuttle Bot

Chatbot to inform students about mess menu, shuttle timings. [800 users](#) and 190k messages.

Energy Sensing System for Dorms

Hardware prototype to monitor real-time energy wastage expressed in monetary loss.