

ISHA PURI

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY <i>PhD Student in Machine Learning and AI, NLP (EECS/CSAIL)</i>	Cambridge, MA 2023 - 2027
- Supported by NSF Graduate Research Fellowship & MIT Great Educators Fellowship - Co-President of Graduate Women in CS. Co-Leader of MIT NLP Seminar. Started MIT NLP Twitter. - Advised by Professors Yoon Kim and Marzyeh Ghassemi - Focus Area: LLM Scaling, Reasoning, Uncertainty, Domain Integration - ishapuri.github.io	
HARVARD UNIVERSITY BA, Applied Mathematics, Computer Science, GPA: 3.94 / 4.0 (Minor: Statistics) Co-President, Harvard Women in CS	Cambridge, MA Kirkland House 2023 Advised by: Professor Hima Lakkaraju
COLUMBIA UNIVERSITY / HORACE GREELEY HIGH SCHOOL High School Honors Program, Summa Cum Laude, Valedictorian, GPA: 4.0/4.0	New York, New York 2019

INVITED TALKS

- UT Austin - October 2025
- NVIDIA - October 2025
- COLM SCALR Workshop Oral - October 2025
- Stanford University - August 2025
- Cohere AI - July 2025
- University of Cambridge - June 2025
- MIT EI Seminar - April 2025
- RedHat - February 2025
- IBM Research - February 2025

SELECTED AWARDS/HONORS

- MIT Great Educators Fellowship
- National Science Foundation (NSF) Graduate Research Fellowship
- Kempner Institute Graduate Fellowship (6 years, fully funded PhD) (Declined) (Harvard)
- Gordon Wu Fellowship (5 year fellowship) (Declined) (Princeton University)
- Donald and Kathleen Pfister Prize for Excellence in the Sciences (2023)
- Coca Cola Scholarship (250 chosen from > 90,000 applications)
- Harvard Tech Innovation Fellowship, (Harvard Business School) (10 chosen, Cohort President)
- Derek Bok Certificate for Distinction in Teaching, (Harvard University)
- ACM Cutler Bell Prize for Excellence in Computing Research, (4 chosen nationwide)
- Davidson Fellowship (Forbes: "World's Most Prestigious Undergraduate Scholarship")
- ThermoFisher Scientific Collegiate Fellowship (6 chosen nationwide)
- NCWIT Collegiate Prize (6 selected nationwide)
- Elected Co-President of Harvard Women in Computer Science (2022), largest undergrad student org on campus, involves managing 40+ person board, \$400k budget, 25+ corporate sponsors, 100+ events / year.
- Intel ISEF Grand Award Winner (2nd Place) (2018) (International Science and Engineering Fair)
- National Security Agency Mathematics Honor Award (2018)
- Forbes, 20 of America's Brightest Students (2019)

PROFESSIONAL AND LEADERSHIP EXPERIENCE

ABRIDGE Product/AI Overhauled entire internal AI evaluation, built customization features, and more. Reported directly to Head of AI and CPO.	San Francisco, CA May 2025 - September 2025 Overhauled entire internal AI evaluation, built customization features, and more. Reported directly to Head of AI and CPO.
NEURIPS Associate Program Chair One of 5 Associate Program Chairs assisting the PC committee (in charge of conference scientific direction)	San Diego, CA February 2025 - Present One of 5 Associate Program Chairs assisting the PC committee (in charge of conference scientific direction)
MIT IBM WATSON RESEARCH LAB Language Models Research working on new ways for Language Models to reason like humans. Building LM agents that can think, plan, execute, and reflect in real-life workflows.	Cambridge, MA June 2023 - September 2024 working on new ways for Language Models to reason like humans. Building LM agents that can think, plan, execute, and reflect in real-life workflows.
IBM RESEARCH AI AI Research Intern, Foundations of Trustworthy AI	New York, NY January 2021 - August 2022
- Developed CoFrNets, a novel, inherently interpretable neural network architecture. - Open sourced CoFrNets to IBM's AI Explainability 360 Library (1.2k Github stars) - First-author paper accepted to NeurIPS 2021, selected for IBM Patenting Process. - Helped guide 2022 summer intern on a follow up project extending CoFrNets to Analog AI.	
AMAZON WEB SERVICES Chief of Staff, AWS University Venture Scout Program	New York, NY May 2021 – May 2022
- Working and reporting directly to Amazon management to oversee a program of 200+ students from 150 schools. Meet with founders, perform due diligence, present findings to Amazon NY Headquarters.	
INSTABASE Software Engineering / Product Management Intern, Machine Learning	San Francisco, CA Summer 2020
- Developed and integrated novel handwriting detection algorithm with 95% Accuracy into Instabase's platform. Used in 5 major client POCs (Bank of America, Royal Bank of Canada, etc.) - Developed document-processing Deep Learning Models in end-to-end workflow for Business Process Automation (BPA) project for financial institutions for 40% increase in document.	
HARVARD WOMEN IN COMPUTER SCIENCE (WICS) Co-President	Cambridge, MA September 2019 - May 2023
- Lead a 40-person board managing a ~\$400k budget for hundreds of members. - Source and secure sponsorships from over 25+ tech companies - Run over 100 social, academic, mentorship, career, sponsorship events yearly. - Speak at conferences, sponsor events, faculty meetings, mentorship summits, etc.	
HARVARD TECH FELLOWS PROGRAM Cohort President, Harvard Undergraduate Technology Innovation Fellows	Cambridge, MA May 2022 - May 2023
- One of 12 students selected per year to work and learn at the intersection of technology, business, and entrepreneurship under the mentorship of HBS professors, VC leaders, and founders. - Elected Cohort Co-President, organizing summits, mentorship sessions, lunches, and professional events.	
SHIFT7 Data Analyst	New York, NY November 2019 – January 2020
- Shift7 is a nonprofit founded by former CTO of the USA, Megan Smith. - Analyzed news feeds for environmental equity. - Presented findings to Megan Smith, former USA CTO.	
HARVARD CONSULTING ON BUSINESS AND THE ENVIRONMENT Technology Case Analyst	Cambridge, MA September 2019 – September 2020
- Worked w/ world's leading furniture retailer (IKEA) to integrate scalable solutions to supply chain and information digitization/management. - Worked w/ global pharmaceutical giant (B. Braun) to propose AI-driven technologies for future product. Presented recommendations to the CEO.	

JP MORGAN CHASE AND CO.

Software Engineering Intern, Fintech Focus Fellow

New York, NY

July – August 2019

- Built a full-stack web application to empower JPMC customers to find local banking options.
- Demoed in front of the Head of AI.

IEEE ETHICS COMMITTEE

Student Lead

San Francisco, California

May 2018 – May 2019

- 1 of 20 students worldwide, developed ethical guidelines for Artificial Intelligence applications, co-authored paper that appeared in IEEE Journal.

PUBLICATIONS

(chronological)

1. **Beyond Binary Rewards: Training LMs to Reason About Their Uncertainty**
Mehul Damani*, Isha Puri*, Stewart Slocum, Idan Shenfeld, Leshem Choshen, Yoon Kim, Jacob Andreas (*= equal contribution)
SCALR@COLM Oral, LLM Explainability for Reasoning & Planning @ COLM, 2025, In Submission.
2. **A Probabilistic Inference Approach to Inference-Time Scaling of LLMs using Particle-Based Monte Carlo Methods**
Isha Puri, Shiv Sudalairaj, GX Xu, Kai Xu, Akash Srivastava
NeurIPS, 2025
3. **MedPAIR: Measuring Physicians and AI Relevance Alignment in Medical Question Answering**
Yuexing Hao, Kumail Alhamoud, Hyewon Jeong, Haoran Zhang, Isha Puri, Philip Torr, Mike Schaeckermann, Ariel D. Stern, Marzyeh Ghassemi
KDD Workshop on Trust & Evaluation in GenAI, COLM Socially Responsible LMs Workshop, 2025
4. **Can AI Relate: Testing Large Language Model Response for Mental Health Support**
Saadia Gabriel, Isha Puri, Xuhai Xu, Matteo Malgaroli, Marzyeh Ghassemi
EMNLP Findings, 2024
5. **Improving Black-box Robustness with In-Context Rewriting**
Kyle O'Brien, Nathan Ng, Isha Puri, Jorge Mendez, Hamid Palangi, Yoon Kim, Marzyeh Ghassemi, Thomas Hartvigsen
Transactions on Machine Learning Research (TMLR), 2024
6. **Evaluating Causal Reasoning Capabilities of Language Models**
Isha Puri, Himabindu Lakkaraju
International Conference on Machine Learning (ICML), 2023
7. **Reconsidering the Algorithmic Fairness of Race Adjustment in Pulmonary Function Equations**
Isha Puri, Neil Sehgal, Usha Bhalla
AI for Social Good Workshop, AAAI, 2023
8. **OpenXAI: Towards a Transparent Evaluation of Model Explanations**
Chirag Agarwal, Satyapriya Krishna, Eshika Saxena, Martin Pawelczyk, Nari Johnson, Isha Puri, Marinka Zitnik, Himabindu Lakkaraju
NeurIPS, 2022
9. **CoFrNets: Interpretable Neural Architecture Inspired by Continued Fractions**
Isha Puri, Amit Dhurandhar, Tejaswini Pedapati, Kartikeyan Shanmugam, Dennis Wei, Kush R. Varshney
NeurIPS, 2021
10. **A System for Accurate Tracking and Video Recordings of Rodent Eye Movements using Convolutional Neural Networks for Biomedical Image Segmentation**
Isha Puri, David Cox
IEEE EMBC, 2018

TEACHING EXPERIENCE

HARVARD UNIVERSITY

3rd Year Teaching Fellow, AM 120 - Linear Algebra and Big Data

- Harvard's Derek Bok Certificate for Distinction in Teaching

Cambridge, MA

May 2020 - May 2023

Peer Concentration Advisor - Applied Mathematics Department

May 2021 - May 2023

Non-Resident Tutor, Kirkland House, Harvard University

May 2023 - Present