

# Lily Xu

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lily-x.github.io

ACADEMIC APPOINTMENTS	<b>Columbia University.</b> New York, NY	starting July 2025
	Assistant Professor Department of Industrial Engineering and Operations Research (IEOR)	
	<b>University of Oxford.</b> Oxford, UK	2024 – 2025
	Postdoctoral Research Fellow Department of Economics and the Leverhulme Centre for Nature Recovery	
EDUCATION	<b>Harvard University.</b> Cambridge, MA	2024
	PhD in Computer Science <i>Advisor: Milind Tambe</i> <i>Thesis committee: Dimitris Bertsimas, Yiling Chen, Andrew Davies, Fei Fang</i>	
	<b>Dartmouth College.</b> Hanover, NH	2018
	A.B. with Honors in Computer Science, minor in Spanish <i>Magna cum laude</i>	
HONORS	Siebel Scholar	2024
	<i>Grant awarded for academic excellence and demonstrated leadership.</i>	
	Rising Star in Data Science (UChicago)	2023
	Rising Star in EECS (GATech)	2023
	Rising Star in Management Science and Engineering (Stanford MS&E)	2023
	Google PhD Fellowship	2022
	<i>One of 13 awardees in machine learning globally.</i>	
	INFORMS Doing Good with Good OR Competition Winner	2021
	<i>Recognizes the “most exciting work performed by students in partnership with public and private organizations that yields tangible and beneficial outcomes for individuals, communities, and organizations”.</i>	
	AAAI Best Paper Award Runner Up	2021
NON-PROFIT SERVICE	<i>3 best papers and 3 runner-ups were selected out of 9,034 submissions and 1,692 accepted papers.</i>	
	Harvard University Derek Bok Certificate of Distinction in Teaching	2021
	Certificate of Appreciation from the SMART Partnership	2019
	<i>Recognition for contribution to developing PAWS system.</i>	
	Five Citations for Academic Excellence at Dartmouth College	2014 – 2018
	<i>Special distinction rarely awarded by faculty members “for meritorious characteristics not indicated adequately by academic grades”, received across five computer science and Spanish courses.</i>	
	Adobe Women-In-Technology Scholarship – Honorable Mention	2017
NON-PROFIT SERVICE	<b>SMART Conservation Partnership.</b>	
	AI Lead	2022 – present
	<i>I work with SMART to effectively integrate AI research into their conservation management activities. The SMART Partnership is the global leader in protected area solutions, consisting of 8 leading conservation NGOs: WWF, WCS, Wildlife Protection Solutions, Frankfurt Zoological Society, ZSL, NC Zoo, Panthera, and Re:wild.</i>	

PREPRINTS

\* indicates equal contribution

† indicates undergraduate I advised

( $\alpha$ - $\beta$ ) indicates alphabetical ordering

**A Bayesian Approach to Online Learning for Contextual Restless Bandits with Applications to Public Health**

*Under review*

Biyonka Liang, **Lily Xu**, Aparna Taneja, Milind Tambe, Lucas Janson

**Reinforcement learning with combinatorial actions for coupled restless bandits**

*Under review*

**Lily Xu**, Bryan Wilder, Elias B. Khalil, Milind Tambe

**Ranger patrols deter poaching: first causal insights for improving protected area management**

*Working paper*

Rachel Guo<sup>†\*</sup>, **Lily Xu**<sup>\*</sup>, Andrew Perrault, Luke W. Miratrix, Andrew J. Plumptre, Joshua Mabonga, Herbert Kitimbo, Fredrick Wanyama, Simon Nampindo, Milind Tambe, Andrew B. Davies

**Artificial Replay: A Meta-Algorithm for Harnessing Historical Data in Bandits**

*Working paper*

( $\alpha$ - $\beta$ ) Siddhartha Banerjee, Sean R. Sinclair, Milind Tambe, **Lily Xu**, Christina Lee Yu

**Reflections from the Workshop on AI-Assisted Decision Making for Conservation**

*White paper*

**Lily Xu**<sup>\*</sup>, Esther Rolf<sup>\*</sup>, Sara Beery, Joseph R. Bennett, Tanya Berger-Wolf, Tanya Birch, Elizabeth Bondi-Kelly, Justin Brashares, Melissa Chapman, Anthony Corso, Andrew Davies, Nikhil Garg, Angela Gaylard, Robert Heilmayr, Hannah Kerner, Konstantin Klemmer, Vipin Kumar, Lester Mackey, Claire Monteleoni, Paul Moorcroft, Jonathan Palmer, Andrew Perrault, David Thau, Milind Tambe

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PUBLICATIONS  
(JOURNALS)

**Bridging adaptive management and reinforcement learning for more robust decisions**

*Philosophical Transactions of the Royal Society B* (2023). Vol. 378, Issue 1881. Melissa Chapman, **Lily Xu**, Marcus Lapeyrolerie, Carl Boettiger

**Biodiversity monitoring for a just planetary future**

*Science* (2024). Vol. 383, Issue 6678, pp. 34–36. Melissa Chapman, Benjamin R. Goldstein, Christopher J. Schell, Justin S. Brashares, Neil H. Carter, Diego Ellis-Soto, Hilary Oliva Faxon, Jenny E. Goldstein, Benjamin S. Halpern, Joycelyn Longdon, Kari EA Norman, Dara O'Rourke, Caleb Scoville, **Lily Xu**, Carl Boettiger

PUBLICATIONS  
(CONFERENCES)

**Stay Ahead of Poachers: Illegal Wildlife Poaching Prediction and Patrol Planning Under Uncertainty with Field Test Evaluations**

*ICDE 2020*. 36th IEEE International Conference on Data Engineering

**Lily Xu\***, Shahrzad Gholami\*, Sara Mc Carthy, Bistra Dilkina, Andrew Plumptre, Milind Tambe, Rohit Singh, Mustapha Nsubuga, Joshua Mabonga, Margaret Driciru, Fred Wanyama, Aggrey Rwetsiba, Tom Okello, Eric Enyel

**Dual-Mandate Patrols: Multi-Armed Bandits for Green Security**

*AAAI 2021.* 35th AAAI Conference on Artificial Intelligence

**Lily Xu**, Elizabeth Bondi, Fei Fang, Andrew Perrault, Kai Wang, and Milind Tambe  
**Best Paper Award Runner Up**

*Top 6 of 1692 accepted papers*

**Envisioning Communities: A Participatory Approach Towards AI for Social Good**

*AIES 2021.* 4th AAI/ACM Conference on AI, Ethics, and Society

Elizabeth Bondi\*, **Lily Xu\***, Diana Acosta-Navas, Jackson A. Killian

**Robust Reinforcement Learning Under Minimax Regret for Green Security**

*UAI 2021.* 37th Conference on Uncertainty in Artificial Intelligence

**Lily Xu**, Andrew Perrault, Fei Fang, Haipeng Chen, Milind Tambe  
**Oral Presentation**

*Top 6.17% of submissions*

**Coordinating Followers to Reach Better Equilibria: End-to-End Gradient Descent for Stackelberg Games**

*AAAI 2022.* 36th AAAI Conference on Artificial Intelligence

Kai Wang, **Lily Xu**, Andrew Perrault, Michael K. Reiter, Milind Tambe

**Ranked Prioritization of Groups in Combinatorial Bandit Allocation**

*IJCAI 2022.* 31st International Joint Conference on Artificial Intelligence

**Lily Xu**, Arpita Biswas, Fei Fang, Milind Tambe

**Restless and Uncertain: Robust Policies for Restless Bandits via Deep Multi-Agent Reinforcement Learning**

*UAI 2022.* 38th Conference on Uncertainty in Artificial Intelligence

Jackson A. Killian, **Lily Xu**, Arpita Biswas, Milind Tambe

**Optimistic Whittle Index Policy: Online Learning for Restless Bandits**

*AAAI 2023.* 37th AAAI Conference on Artificial Intelligence

Kai Wang\*, **Lily Xu\***, Aparna Taneja, Milind Tambe

**Robust Planning over Restless Groups: Engagement Interventions for a Large-Scale Maternal Telehealth Program**

*AAAI 2023.* 37th AAAI Conference on Artificial Intelligence

Jackson A. Killian\*, Arpita Biswas\*, **Lily Xu\***, Shresth Verma\*, Vineet Nair, Aparna Taneja, Aparna Hegde, Neha Madhiwalla, Paula Rodriguez Diaz, Sonja Johnson-Yu, Milind Tambe

**Flexible Budgets in Restless Bandits: A Proximal Primal-Dual Algorithm for Efficient Budget Allocation**

*AAAI 2023.* 37th AAAI Conference on Artificial Intelligence

Paula Rodriguez Diaz, Jackson A. Killian, **Lily Xu**, Aparna Taneja, Arun Sai Suggala, Milind Tambe

*Oxford Handbook of the Sociology of Machine Learning* (2023)

Caleb Scoville, Hilary Faxon, Melissa Chapman, Samantha Jo Fried, **Lily Xu**, Carl Boettiger, J. Michael Reed, Marcus Lapeyrolerie, Amy Van Scoyoc, Razvan Amironesei

## INVITED TALKS

*Does not include contributed conference and workshop talks*  
Major talks underlined

### **Conservation management and policy with causal inference and ML**

*University of Maryland.* Analytics for Good workshop May 2024

### **Opportunities in AI decision support for biodiversity conservation**

*Aspen Global Change Institute.* AI for Biodiversity: Overcoming Barriers to Impact  
Jul 2024

*Climate Change AI.* Summer School Jun 2024

### **Opportunities in AI decision-making for wildlife conservation**

*Harvard.* CGA Geospatial AI workshop May 2024

*Verena Institute.* May 2024

*Equitech Futures.* Apr 2024

### **High-stakes decisions from low-quality data: AI decision-making for planetary health**

*GATech.* School of Computer Science Feb 2024

*Max Planck Institute.* MPI-SWS Kaiserslautern Feb 2024

*Max Planck / Universität Tübingen.* Tübingen AI Center Feb 2024

*CMU.* Engineering and Public Policy (EPP) Feb 2024

*Cornell.* Information Science Feb 2024

*Cornell.* ORIE Feb 2024

*Michigan.* IOE Feb 2024

*Dartmouth.* Thayer School of Engineering Jan 2024

*Columbia.* IEOR Jan 2024

*Yale School of Management.* Operations group Jan 2024

*Columbia Business School.* DRO division Jan 2024

*MIT Sloan.* OR/STATS Jan 2024

*Wharton School.* OID Dec 2023

*UT Austin McCombs.* IROM Nov 2023

*Caltech.* FALCON Research Group Seminar Nov 2023

*UChicago.* Rising Stars in Data Science Nov 2023

*UC Berkeley.* Data Science Toolbox Series Oct 2023

*INFORMS Annual Meeting.* ML for Social Good session Oct 2023

*Cornell ORIE.* Young Researchers Workshop Oct 2023

*J.P. Morgan.* AI Research group Oct 2023

*Stanford MS&E.* Rising Stars in MS&E May 2023

### **Causal AI and Conservation**

*ICCB.* Int'l Conference on Conservation Biology, Kigali, Rwanda Jul 2023

*Microsoft Research New England.* Machine Learning Ideas seminar Jun 2023

*United Nations ITU.* AI for Good Summit Jun 2023

*WWF.* Fuller Seminar Series on Conservation AI Apr 2023

### **Minimax Regret Optimization: Robust Planning for Conservation and Maternal Health**

*Berkeley MARL.* Multi-Agent Learning Seminar Mar 2023

*Brown University.* Algorithmic Game Theory group Mar 2023

### **Learning and Planning Under Uncertainty for Wildlife Conservation**

*Harvard Kennedy School.* "Leading in AI" Executive Education Jul 2023

*Penn State.* CSRAI Young Achievers Symposium Mar 2023

<i>UC Berkeley.</i> Global Policy Lab	Feb 2023
<i>Centro de Analítica para Políticas Públicas (CAPP).</i> (in Spanish)	Dec 2022
<i>Georgia Tech.</i> ISyE department seminar	Nov 2022
<i>Analytics for a Better World.</i> <u>ABW Webinar Series</u>	Sep 2022
<i>Harvard Kennedy School.</i> “Leading in AI” Executive Education	Jul 2022
<i>UC Berkeley.</i> Ethics and Practices of Algorithmic Conservation	Apr 2022
<i>UCL.</i> Climate Hack AI Competition, <i>keynote</i>	Mar 2022
<i>Harvard University.</i> HCI Colloquium: AI-Assisted Decision-Making	Feb 2022
<i>Pasteur’s Quadrant.</i> Seminar Series	Feb 2022
<i>INFORMS.</i> <u>Doing Good with Good OR Finalists</u>	Oct 2021

#### **Ranked Prioritization of Groups in Combinatorial Bandit Allocation**

<i>Sony.</i> Computer Science Laboratories (CSL) Paris	Oct 2022
<i>Stanford.</i> Computing & Society group	Oct 2022
<i>INFORMS Annual Meeting.</i> Fairness in Sequential Decision Making	Oct 2022

#### **Envisioning Communities: A Participatory Approach to AI for Social Good**

<i>MIT.</i> AI Ethics group	Sep 2022
<i>Women’s Forum.</i> Women4AI Daring Circle workshop	Jun 2022

#### **Robust Reinforcement Learning Under Minimax Regret for Green Security**

<i>Google Research India.</i> AI for Social Good research group	Jan 2022
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#### **PAWS: AI to Predict and Plan Against Poaching**

<i>ICCB.</i> International Congress for Conservation Biology	Dec 2021
<i>IUCN WCC.</i> <u>World Conservation Congress</u>	Sep 2021
<i>WILDLABS.</i> Tech Tutors: Season Three	Sep 2021
<i>AI for Climate.</i> Mexico Talk Series powered by Huawei	Jul 2021
<i>SMART Partnership.</i> International Women’s Day Webinar	Mar 2021
<i>WWF.</i> Webinar on SMART	Apr 2020
<i>AI LA.</i> Earth Summit	Apr 2021

#### **Dual-Mandate Patrols: Multi-Armed Bandits for Green Security**

<i>Beijing Academy of Artificial Intelligence.</i>	Mar 2021
<i>University College London.</i> AI Society	Feb 2021

INVITED PANELS	<i>Hertz Foundation Workshop.</i> AI Science and Policy, <i>moderator</i>	Jul 2022
	panelists: Jacob Steinhardt, Julie Owono, Jessica Fjeld	
	<i>South by Southwest (SXSW).</i> AI for Wildlife, <i>panelist</i>	Mar 2021
	<i>Harvard CRCS.</i> AI for Social Impact, <i>moderator</i>	Mar 2020
	panelists: Susan Murphy, Erez Yoeli, Desmond Patton	

GUEST LECTURES	<i>Harvard.</i> CS 288. AI for Social Impact	Spring 2024
	<i>Vanderbilt.</i> CS 5891. AI for Social Impact	Spring 2024
	<i>Cornell Tech.</i> CS 6382. Data Science for Social Change	Fall 2023
	<i>Cornell Tech.</i> ORIE 5355/INFO 5370. Applied Data Science: Decision-making beyond prediction	Fall 2023
	<i>Harvard.</i> CS 182. Artificial Intelligence	Fall 2023
	<i>Cornell.</i> INFO 6960. Data Science for Global Development	Spring 2023
	<i>MIT.</i> 15 076. Analytics for a Better World	Spring 2023
	<i>Harvard.</i> CS 96. Machine Learning for Social Impact	Spring 2023

<i>Wellesley.</i>	CS 115. Computing for the Socio-Techno Web	Fall 2022
<i>Ohio State.</i>	CSE 3521. Survey of Artificial Intelligence I	Fall 2022
<i>Harvard.</i>	CS 288. AI for Social Impact class	Fall 2022
<i>University of Southern California.</i>	ISE 599. Analytics for Social Impact	Spring 2022
<i>UPenn Wharton.</i>	OIDD 941. Recent Advances in Data-Driven Decision-Making	Spring 2022
<i>Harvard.</i>	CS 96. Machine Learning for Social Impact	Spring 2022
<i>Cornell Tech.</i>	ORIE 5355/INFO 5370. People, Data, Systems	Fall 2021
<i>Harvard Business School.</i>	HBSMBA 2231. From Data to Decisions	Fall 2021
<i>Wellesley.</i>	CS 115. Computing for the Socio-Techno Web	Fall 2021
<i>Australian National University.</i>	CECS8001. Building Cyber-Physical Systems	Fall 2021
<i>University of Pittsburgh.</i>	CS 1699. AI for Good: Ethics and Implications	Spring 2021
<i>University of Michigan.</i>	SI 431. Algorithms and Society	Spring 2021
<i>Harvard.</i>	CS 182. Artificial Intelligence	Fall 2020
<i>Dartmouth.</i>	CS 11. Foundations of Applied Computer Science	Spring 2018

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WORK  
EXPERIENCE

<b>Google Research.</b> India, AI for Social Good lab <i>Student Researcher</i>	Spring 2022
<b>Google.</b> Seattle, WA <i>Software Engineering Intern</i>	Summer 2017
<b>Dyn, Inc.</b> Hanover, NH <i>Data Analytics Research Intern</i>	Spring 2016

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STUDENTS ADVISED EXPERIENCE	→ <i>At Harvard College</i>	
	Vincent Börsch-Supan '25	Sep 2022 – Dec 2023
	Alejandra Perea Rojas '24	Jun 2022 – Dec 2022
	Christopher Ong '23	Spring 2022
	April Chen '22	Summer 2021
	<i>Adobe Research Women-In-Technology Scholarship Winner</i>	
	Ezenia Diaz-Lembert '23	Spring 2021
	Emilia Cabrera '21	Sep 2020 – Dec 2021
	<i>Thesis: Protecting the Lion's Share: Mitigating Illegal Wildlife Poaching with Multi-Agent Reinforcement Learning</i>	
	Rachel Guo '22	Jun 2020 – May 2023
	<i>NCWIT Collegiate Award Winner</i>	
	<i>CRA Outstanding Undergraduate Researcher Award — Honorable Mention</i>	
	<i>Harvard Hoopes Prize for Outstanding Thesis</i>	
	<i>NSF Graduate Research Fellowship</i>	
	<i>Thesis: On the Effect of Ranger Patrols on Deterring Poaching: A Bayesian Approach for Causal Inference Using Field Tests as an Instrument</i>	
	<i>Next step: Stanford ICME PhD student</i>	
TEACHING EXPERIENCE	<b>Harvard University</b>	
	→ <i>Head Teaching Fellow</i>	
	CS 182: Artificial Intelligence	Fall 2020
	<b>Harvard Derek Bok Certificate of Distinction in Teaching</b>	
	<b>Dartmouth College</b>	
	→ <i>Teaching Assistant, Department of Computer Science</i>	
	CS 11: Foundations of Applied Computer Science, <i>head TA</i>	Spring 2018
	CS 1: Intro to Programming and Computation	Spring 2018
	CS 1: Intro to Programming and Computation	Fall 2017
	CS 31: Algorithms	Winter 2017
	CS 1: Intro to Programming and Computation	Spring 2017
	CS 10: Object-Oriented Programming	Spring 2016
	CS 1: Intro to Programming and Computation	Winter 2016
	CS 1: Intro to Programming and Computation	Fall 2015
	CS 10: Object-Oriented Programming	Spring 2015
	→ <i>Teaching Assistant, Tuck School of Business</i>	
	Tuck FWP: Fundamentals of Web Programming	Spring 2017
	Tuck DSA: Data Structures and Analytics	Spring 2017

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FUNDING: PROPOSALS AND AWARDS	Lily Xu. Siebel Scholar, awarded 2023. \$35,000
	Co-I (submitted as PhD student, with 0% funding). Hannah Kerner, Sara Beery, <b>Lily Xu</b> , Jacob Muise, Shay Chan Hodges, Nicholas Winfrey. <i>Combating Invasive Axis Deer in Maui, Hawaii with Earth Observations and Machine Learning</i> . Submitted to NASA in response to 2022 Research Opportunities in Space and Earth Sciences (ROSES) A.40 Earth Science Applications: Ecological Conservation (ECON)
	Lily Xu. Google PhD fellowship, awarded 2022. \$88,029

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## PROFESSIONAL SERVICE

**EAAMO** (Equity and Access in Algorithms, Mechanisms, and Optimization)  
**formerly Mechanism Design for Social Good (MD4SG)**  
 Nonprofit incorporation and Executive Director recruitment, lead Apr 2023 –  
 MD4SG initiative-wide co-organizer Mar 2021 –  
*with Charles Cui, Francisco J. Marmolejo Cossío, George Obaido,*  
*Matthew Olckers, and Ana-Andrea Stoica;*  
*previously with Rediet Abebe, Irene Lo, and Wanyi Li*  
 Community Engagement team, founder and co-lead Oct 2020 – Apr 2021  
 Working Group on Environment, co-founder and co-organizer Jan 2020 – Apr 2021

### Workshop Organization

Co-organizer, AI-Assisted Decision Making for Conservation Workshop Oct 2022  
*with Esther Rolf and Milind Tambe*  
 Organizer, SMART/PAWS Workshop. Rio Bravo, Belize Aug 2022  
 Lead organizer, Harvard CRCS Rising Stars Workshop Mar 2020  
 Co-organizer, Computational Sustainability Doctoral Consortium Oct 2019  
*with Priya Donti, Genevieve Flaspohler, Aaron Ferber, and Sebastian Ament*

### Tutorials

Lead organizer, AI for Social Impact tutorial @ EAAMO Oct 2023  
*with Emily Aiken, Priya Donti, Nikhil Garg, and Paul Gözl*

### Panels

Co-organizer and co-moderator. The Future of AI for Social Impact Apr 2022  
*panelists: Fei Fang, Lynn Kaack, Danaë Metaxa, Bryan Wilder*

### Conference Event Organization

Social co-chair, ACM EAAMO'23 Oct 2023  
 Social co-chair, ACM EAAMO'22 Oct 2022  
 Social co-chair, ACM EAAMO'21 Oct 2021  
 Social co-chair, Fourth Workshop on MD4SG Aug 2020

### Seminar Organization

Co-organizer, Harvard CRCS Social Impact Seminar Series Spring 2022  
 Co-organizer, Harvard CRCS Rising Stars Speaker Series Apr 2021  
 Co-organizer, CompSust Open Graduate Seminar (COGS) Spring 2020

### Journal Reviewing

Ambio

### Program Committee (Conference reviewing)

→ *Conferences*

*AIES.* Artificial Intelligence, Ethics, and Society 2022, 2023  
*AAAI.* AAAI Conference on Artificial Intelligence 2023  
*AAAI AISI track.* AAAI Conference on Artificial Intelligence 2020, 2021, 2022  
*COMPASS.* ACM SIGCAS Conference on Computing and Sustainable Societies 2021  
*EAAMO.* ACM Equity and Access in Algorithms, Mechanisms, and Optimization 2021,  
 2022, 2023, 2024  
*FAccT.* ACM Conference on Fairness, Accountability, and Transparency 2022, 2023  
*IAAI.* AAAI Innovative Applications of Artificial Intelligence 2023  
*NeurIPS.* Neural Information Processing Systems 2023  
*UAI.* Uncertainty in Artificial Intelligence 2023

→ *Workshops*

AI for Wildlife Conservation @ SIGSPATIAL	2023
Autonomous Agents for Social Good (AASG) @ AAMAS	2021, 2023
AI for Social Good @ AAAI	2023
Data-Driven Humanitarian Mapping @ KDD	2020, 2021, 2022
Regulating Machine Learning @ NeurIPS	2023
Computational Sustainability @ NeurIPS	2023
Cooperative AI Workshop @ NeurIPS	2022
Black in AI Workshop @ NeurIPS	2020, 2021, 2022
Machine Learning for the Developing World (ML4D) @ NeurIPS	2020, 2021
Machine Learning for Public Health @ NeurIPS	2021
Resistance AI @ NeurIPS	2020
AI for Social Good @ IJCAI	2020
Mechanism Design for Social Good (MD4SG)	2020
AI for Social Good @ Harvard CRCS	2020

### Competition Selection Committee

AI2, EarthRanger Conservation Tech Award	2022, 2023
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### Reviewer

Deep Learning Indaba	2022
Caltech Computer Vision for Ecology (CV4Ecology) Summer School	2022
ICML, <i>subreviewer</i>	2021
NeurIPS, <i>subreviewer</i>	2020
IJCAI Special Track on CompSust and Human Well-being, <i>subreviewer</i>	2020
COMPASS, <i>subreviewer</i>	2019
Bloomberg Data for Good Exchange (D4GX), <i>subreviewer</i>	2019

## OUTREACH

### Speaking

<i>Harvard.</i> CS 290, Navigating grad school, <i>panelist</i>	Nov 2023
<i>Harvard.</i> Tech for Social Good and Harvard Computer Society	Mar 2023
<i>Harvard SEAS.</i> PhD Admitted Students Open House, <i>panelist</i>	Mar 2021
<i>Harvard SEAS.</i> Research Labs Open House	Nov 2020
<i>GirlsComputingLeague.</i> AIInnovation Business Summit	Sep 2020
<i>IEEE Computer Society.</i> Women in Computing, Kerala Chapter	Sep 2020
<i>Data Science Africa.</i> Tutorial on MD4SG and the Environment	Jul 2020
<i>Ledyard Canoe Club.</i> Inclusivity in the Outdoors	Jul 2020
<i>Dartmouth.</i> Women in Computer Science, <i>panelist</i>	May 2020
<i>Harvard SEAS.</i> Diversity, Inclusivity, and Belonging, <i>panelist</i>	May 2020
<i>Center for Initiatives in Jewish Education.</i> High school student visit	Mar 2020
<i>World Science Festival.</i> Science and Storytime	Jun 2019
<i>L.A. Unified School District (LAUSD).</i> African American Family Day	May 2019
<i>Zoo Magnet High School.</i> College and Career Day	Nov 2018

### Mentoring

<i>Harvard University.</i> InTouch Peer Mentor	2020 –
<i>Harvard University.</i> Women in STEM Mentor	2019 – 2020
<i>Dartmouth College.</i> Women in Computer Science	2017 – 2018

### Volunteering

<i>Harvard SEAS.</i> A Guide to Your PhD	Oct 2020
<i>Harvard University.</i> Project Teach	Apr 2020
<i>Cambridge Public Schools.</i> STEAM It Up!	Oct 2019
<i>Hustle N' Code.</i> Hackathon, <i>technical lead</i>	Dec 2018

*Hustle N' Code is a Los Angeles hackathon for youth in public housing.  
My team won first place, and the four students each received a laptop.*

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**Case Studies**

*Harvard Business School.* SMART: AI and ML for Wildlife Conservation Oct 2022

**Podcasts**

*Ecochat.* AI for Conservation - Using Machine Learning to Stop Poaching 2023

*Cold Call (Harvard Business School podcast).* Can AI and Machine Learning Help Park Rangers Prevent Poaching? 2023

*INFORMS Resoundingly Human Podcast.* May 2022

*Rethinking Economics NL.* Disruptive Technologies podcast series. May 2021

**Video**

*Alhub.* New Voices in AI: environmental conservation with Lily Xu. Oct 2022

*Voice of America (VOA) News.* Wildlife Rangers Use AI to Predict Poachers' Next Moves. Jan 2022

**Articles**

*Business Insider.* Conservationists are using artificial intelligence to map out the best ways for saving threatened wildlife and resources Oct 2022

*Oxford Science.* AI in conservation: a modern-day solution to the biodiversity crisis? March 2022

*The Hill.* These new technologies could transform wildlife conservation. Feb 2022

*Harvard SEAS.* Computer Conservation. Nov 2021

*Alhub.* Interview with Lily Xu. Oct 2021

*Engadget.* PAWS anti-poaching AI predicts where illegal hunters will show up next. Mar 2021

*Mongabay.* Where to patrol next: 'Netflix' of ranger AI serves up poaching predictions. Nov 2020

*Harvard SEAS.* Preventing poaching. Jun 2020

*BBC Sounds.* How tech is tackling wildlife trafficking. Jun 2020

*BBC World Service.* Using technology to take on poachers. Aug 2019

*USC Viterbi Magazine.* AI is for Animals. Apr 2019

## REFERENCES

**Milind Tambe** milind\_tambe@harvard.edu

Gordon McKay Professor of Computer Science, Harvard University  
Director of AI for Social Good, Google Research

**Yiling Chen** yiling@seas.harvard.edu

Gordon McKay Professor of Computer Science, Harvard University

**Andrew Davies** andrew\_davies@fas.harvard.edu

Assistant Professor of Organismic and Evolutionary Biology, Harvard University

**Fei Fang** feifang@cmu.edu

Associate Professor, Carnegie Mellon University

**Nikhil Garg** ngarg@cornell.edu

Assistant Professor, Cornell Tech