lily\_xu@g.harvard.edu lily-x.github.io

APPOINTMENTS	Assistant Professor Department of Industrial Engineering and Operations Research (IEOR)	ting July 2025
	University of Oxford. Oxford, UK	2024 - 2025
	Postdoctoral Research Fellow Department of Economics and the Leverhulme Centre for Nature Recov	ery
EDUCATION	Harvard University. Cambridge, MA PhD in Computer Science Advisor: Milind Tambe Thesis committee: Dimitris Bertsimas, Yiling Chen, Andrew Davies, Fe	2024 ei Fang
	Dartmouth College. Hanover, NH A.B. with Honors in Computer Science, minor in Spanish Magna cum laude	2018
Honors	Siebel Scholar	2024
	Grant awarded for academic excellence and demonstrated leadership.	
	Rising Star in Data Science (UChicago)	2023
	Rising Star in EECS (GATech) Rising Star in Management Science and Engineering (Stanford MS&E)	2023 $2023$
	Google PhD Fellowship	2023
	One of 13 awardees in machine learning globally.	2022
	INFORMS Doing Good with Good OR Competition Winner	2021
	Recognizes the "most exciting work performed by students in partnership a private organizations that yields tangible and beneficial outcomes for indiv communities, and organizations".	_
	AAAI Best Paper Award Runner Up	2021
	3 best papers and 3 runner-ups were selected out of 9,034 submissions and papers.	1,692 accepted
	Harvard University Derek Bok Certificate of Distinction in Teaching	2021
	Certificate of Appreciation from the SMART Partnership Recognition for contribution to developing PAWS system.	2019
	Five Citations for Academic Excellence at Dartmouth College  Special distinction rarely awarded by faculty members "for meritorious che indicated adequately by academic grades", received across five computer so Spanish courses.  Adobe Women-In-Technology Scholarship – Honorable Mention	
N. D	CMA DE C	

Non-Profit Service

## SMART Conservation Partnership.

AI Lead 2022 – present

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.

#### Preprints

- \* indicates equal contribution
- $^{\dagger}$  indicates undergraduate I advised

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

## Unlocking the value of ranger-based monitoring for biodiversity conservation and protected area management

Under review

Timothy Kuiper, Anthony Dancer, Colin Beale, Arash Ghoddousi, Harriet Ibbett, Laure Joanny, Blessing Kavhu, Aidan Keane, Daniel Makaza, E.J. Milner-Gulland, Jennifer Moore, and **Lily Xu** 

# 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**\*, 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\*, Esther Rolf\*, 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

# 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

## PUBLICATIONS (BOOK CHAPTERS

#### Environment, Society, and Machine Learning

(BOOK CHAPTERS) 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 <u>underlined</u>

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

University of Maryland. Analytics for Good workshop May 2024

### AI for conservation decisions

Aspen Global Change Institute.

Climate Change AI. Summer School

Jul 2024

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

planetary hearth	
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. Theyer 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 Microsoft Research New England. Machine Learning Ideas seminar United Nations ITU. AI for Good Summit WWF. Fuller Seminar Series on Conservation AI	Jul 2023 Jun 2023 Jun 2023 Apr 2023	
	Minimax Regret Optimization: Robust Planning for Conservation 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 Conserva	ation	
	Harvard Kennedy School. "Leading in AI" Executive Education	Jul 2023	
	Penn State. CSRAI Young Achievers Symposium	Mar 2023	
	UC Berkeley. Global Policy Lab	Feb 2023	
	Centro de Analítica para Políticas Públicas (CAPP). (in Spanish)	Dec 2022	
	Georgia Tech. ISyE department seminar	Nov 2022	
	Analytics for a Better World. ABW Webinar Series	Sep 2022	
	Harvard Kennedy School. "Leading in AI" Executive Education	Jul 2022	
	UC Berkeley. Ethics and Practices of Algorithmic Conservation	Apr 2022	
	UCL. Climate Hack AI Competition, keynote Harvard University. HCI Colloquium: AI-Assisted Decision-Making	Mar 2022 Feb 2022	
	Pasteur's Quadrant. Seminar Series	Feb 2022	
	INFORMS. Doing Good with Good OR Finalists	Oct 2021	
	2011 Offins. Doing Good with Good Off I mailed	000 2021	
	Ranked Prioritization of Groups in Combinatorial Bandit Alloca		
	Sony. Computer Science Laboratories (CSL) Paris	Oct 2022	
	Stanford. Computing & Society group  INFORMS Appeal Meeting Frimess in Sequential Decision Melting	Oct 2022 Oct 2022	
	INFORMS Annual Meeting. Fairness in Sequential Decision Making	OCt 2022	
	Envisioning Communities: A Participatory Approach to AI for S Good	Social	
	MIT. AI Ethics group	Sep 2022	
	Women's Forum. Women4AI Daring Circle workshop	Jun 2022	
	Women's Porant. Women4Al Dailing Circle workshop	Jun 2022	
	Robust Reinforcement Learning Under Minimax Regret for Gr Security		
	Google Research India. AI for Social Good research group	Jan 2022	
	PAWS: AI to Predict and Plan Against Poaching		
	ICCB. International Congress for Conservation Biology	$\mathrm{Dec}\ 2021$	
	IUCN WCC. World Conservation Congress	Sep $2021$	
	WILDLABS. Tech Tutors: Season Three	Sep $2021$	
	AI for Climate. Mexico Talk Series powered by Huawei	Jul 2021	
	SMART Partnership. International Women's Day Webinar	Mar 2021	
	WWF. Webinar on SMART	Apr $2020$	
	AI LA. Earth Summit	Apr 2021	
	Dual-Mandate Patrols: Multi-Armed Bandits for Green Security	у	
	Beijing Academy of Artificial Intelligence.	Mar~2021	
	University College London. AI Society	Feb 2021	
Invited Panels	Hertz Foundation Workshop. AI Science and Policy, moderator	Jul 2022	
	panelists: Jacob Steinhardt, Julie Owono, Jessica Fjeld South by Southwest (SXSW). AI for Wildlife, panelist	Mar 2021	

Guest Lectures	NYU Stern. Data-driven models and their application in practice	Fall 2024
	Harvard. CS 288. AI for Social Impact	Spring 2024
	Vanderbilt. CS 5891. AI for Social Impact	Spring 2024
	Cornell Tech. CS 6382. Data Science for Social Change	Fall 2023
	Cornell Tech. ORIE 5355/INFO 5370. Applied Data Science: Decision-make	ing beyond
	prediction	Fall 2023
	Harvard. CS 182. Artificial Intelligence	Fall 2023
	Cornell. INFO 6960. Data Science for Global Development	Spring 2023
	MIT. 15 076. Analytics for a Better World	Spring 2023
	Harvard. CS 96. Machine Learning for Social Impact	Spring 2023
	Wellesley. CS 115. Computing for the Socio-Techno Web	Fall 2022
	Ohio State. CSE 3521. Survey of Artificial Intelligence I	Fall 2022
	Harvard. CS 288. AI for Social Impact class	Fall 2022
	University of Southern California. ISE 599. Analytics for Social Impact	Spring 2022
	UPenn Wharton. OIDD 941. Recent Advances in Data-Driven Decision-Ma	aking Spring
	2022	
	Harvard. CS 96. Machine Learning for Social Impact	Spring 2022
	Cornell Tech. ORIE 5355/INFO 5370. People, Data, Systems	Fall 2021
	Harvard Business School. HBSMBA 2231. From Data to Decisions	Fall 2021
	Wellesley. CS 115. Computing for the Socio-Techno Web	Fall 2021
	Australian National University. CECS8001. Building Cyber-Physical Syst	ems Fall 2021
	University of Pittsburgh. CS 1699. AI for Good: Ethics and Implications	Spring 2021
	University of Michigan. SI 431. Algorithms and Society	Spring 2021
	Harvard. CS 182. Artificial Intelligence	Fall 2020
	Dartmouth. CS 11. Foundations of Applied Computer Science	Spring 2018

WORK Google Research. India, AI for Social Good lab

EXPERIENCE Student Researcher Spring 2022

Google. Seattle, WA

Software Engineering Intern Summer 2017

Dyn, Inc. Hanover, NH

Data Analytics Research Intern Spring 2016

Students Advised  $\rightarrow$  At Harvard College

Vincent Börsch-Supan '25
Alejandra Perea Rojas '24
Christopher Ong '23
April Chen '22
Summer 2021
Summer 2021

Adobe Research Women-In-Technology Scholarship Winner

Ezenia Diaz-Lembert '23 Spring 2021

Emilia Cabrera '21 Sep 2020 – Dec 2021

Thesis: Protecting the Lion's Share: Mitigating Illegal Wildlife Poaching with Multi-Agent Reinforcement Learning

Rachel Guo '22 Jun 2020 – May 2023

NCWIT Collegiate Award Winner

CRA Outstanding Undergraduate Researcher Award — Honorable Mention

Harvard Hoopes Prize for Outstanding Thesis

NSF Graduate Research Fellowship

Thesis: On the Effect of Ranger Patrols on Deterring Poaching: A Bayesian

Approach for Causal Inference Using Field Tests as an Instrument

Next step: Stanford ICME PhD student

### TEACHING EXPERIENCE

#### Harvard University

 $\rightarrow$  Head Teaching Fellow CS 182: Artificial Intelligence

Artificial Intelligence Fall 2020

#### Harvard Derek Bok Certificate of Distinction in Teaching

### **Dartmouth College**

0	
$\rightarrow$ Teaching Assistant, Department of Computer Science	
CS 11: Foundations of Applied Computer Science, head TA	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
$\rightarrow$ Teaching Assistant, Tuck School of Business	
· · · · · · · · · · · · · · · · · · ·	Cramina 2017
Tuck FWP: Fundamentals of Web Programming	Spring 2017
Tuck DSA: Data Structures and Analytics	Spring 2017

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, **Lily Xu**, Jacob Muise, Shay Chan Hodges, Nicholas Winfrey. *Combating Invasive Axis Deer in Maui, Hawaii with Earth Observations and Machine Learning*. 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

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/EAAMO Bridges 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		
	Working Group on Environment, advisor	Apr 2021 –	
	· ·	20 – Apr 2021	
	,	20 – Apr 2021	
	Workshop Organization		
	Co-organizer, AI-Assisted Decision Making for Conservation Workshop with Esther Rolf and Milind Tambe	Oct 2022	
	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		
	Tutorials		
	Lead organizer, AI for Social Impact tutorial @ EAAMO with Emily Aiken, Priya Donti, Nikhil Garg, and Paul Gölz	Oct 2023	
	Panels		
	Co-organizer and co-moderator. The Future of AI for Social Impact panelists: Fei Fang, Lynn Kaack, Danaë Metaxa, Bryan Wilder	Apr 2022	
	Conference Event Organization		
	Session co-organizer, WALE workshop	Jun 2024	
	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	$\mathrm{Aug}\ 2020$	
	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		
	$\begin{array}{ll} \textbf{Program Committee (Conference reviewing)} \\ \rightarrow & \textit{Conferences} \end{array}$		
	AIES. Artificial Intelligence, Ethics, and Society	2022, 2023	
	AAAI. AAAI Conference on Artificial Intelligence	2023	
	_	20, 2021, 2022	
	COMPASS. ACM SIGCAS Conference on Computing and Sustainable Soci		
	EAAMO. ACM Equity and Access in Algorithms, Mechanisms, and Optimi		
	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	
	IIAI Uncertainty in Artificial Intelligence	2023	

 $\ensuremath{U\!A\!I\!.}$  Uncertainty in Artificial Intelligence

2023

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	$\rightarrow$ Workshops AI for Wildlife Conservation @ SIGSPATIAL		2023
	Autonomous Agents for Social Good (AASG) @ AAMAS	2021	, 2023
	AI for Social Good @ AAAI	-0-1,	2023
		2020, 2021,	
	Regulating Machine Learning @ NeurIPS		2023
	Computational Sustainability @ NeurIPS		2023
	Cooperative AI Workshop @ NeurIPS		2022
		2020, 2021,	
	Machine Learning for the Developing World (ML4D) @ NeurIPS	2020,	, 2021
	Machine Learning for Public Health @ NeurIPS Resistance AI @ NeurIPS		2021 $2020$
	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
	Reviewer		2022
	Deep Learning Indaba  Caltach Computer Vision for Foology (CV/4Foology) Summer School		$2022 \\ 2022$
	Caltech Computer Vision for Ecology (CV4Ecology) Summer School ICML, subreviewer		2022
	NeurIPS, subreviewer		2021
	IJCAI Special Track on CompSust and Human Well-being, subreviewe	er	2020
	COMPASS, subreviewer		2019
	Bloomberg Data for Good Exchange (D4GX), subreviewer		2019
OUTREACH	Speaking		
Oction	Harvard. CS 290, Navigating grad school, panelist	Nov	2023
	Harvard. Tech for Social Good and Harvard Computer Society		2023
	Harvard SEAS. PhD Admitted Students Open House, panelist		2021
	Harvard SEAS. Research Labs Open House		2020
	GirlsComputingLeague. AInnovation Business Summit	Sep	2020
	IEEE Computer Society. Women in Computing, Kerala Chapter		2020
	Data Science Africa. Tutorial on MD4SG and the Environment		1 2020
	Ledyard Canoe Club. Inclusivity in the Outdoors		1 2020
	Dartmouth. Women in Computer Science, panelist		2020
	Harvard SEAS. Diversity, Inclusivity, and Belonging, panelist Center for Initiatives in Jewish Education. High school student visit		2020 2020
	World Science Festival. Science and Storytime		2019
	L.A. Unified School District (LAUSD). African American Family Da		2019
	Zoo Magnet High School. College and Career Day		2018
	Mentoring		
	Harvard University. InTouch Peer Mentor	2	2020 -
	Harvard University. Women in STEM Mentor	2019 -	
	Dartmouth College. Women in Computer Science	2017 -	
	Volunteering		
	Harvard SEAS. A Guide to Your PhD	Oct	2020
	Harvard University. Project Teach	_	2020
	Cambridge Public Schools. STEAM It Up!	Oct	2019

 $\label{eq:hustle N' Code} Hackathon, technical lead\\ Hustle N' Code is a Los Angeles hackathon for youth in public housing.\\ My team won first place, and the four students each received a laptop.$ 

Dec 2018

#### Press

#### 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

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

AIhub. 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 2020BBC Sounds.How tech is tackling wildlife trafficking.Jun 2020BBC World Service.Using technology to take on poachers.Aug 2019USC 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