

# ANDI PENG

## CONTACT INFORMATION

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## EDUCATION

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Ph.D.	<b>Massachusetts Institute of Technology</b> Electrical Engineering and Computer Science Interests: <i>reinforcement learning, human-robot interaction</i>	2020 - Present Cambridge, MA
B.S.	<b>Yale University, cum laude</b> Cognitive Science	2013 - 2018 New Haven, CT
B.A.	Global Affairs, <i>with distinction</i>	

## RESEARCH POSITIONS

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2020 -	<b>Improbable AI Lab, MIT CSAIL</b> <i>Graduate Research Assistant</i> Advisor: Pulkit Agrawal	Cambridge, MA
Summer 2021	<b>Robotics, Facebook AI Research (FAIR)</b> <i>Research Intern</i> Mentors: Aravind Rajeswaran and Vikash Kumar	Pittsburgh, PA
2018 - 2020	<b>Adaptive Systems and Interaction Group, Microsoft Research</b> <i>AI Resident</i> Mentors: Ece Kamar, Besmira Nushi, Emre Kiciman, Kori Inkpen, Nebojsa Jojic	Redmond, WA
2018	<b>White House Office of Science and Technology Policy (OSTP)</b> <b>National Institute for Standards and Technology (NIST)</b> <i>Policy Intern/Research Associate</i> Mentor: Jake Taylor	Washington, DC Gaithersburg, MD
2016 - 2018	<b>Social Robotics Lab, Yale University</b> <i>Undergraduate Research Assistant</i> Advisor: Brian Scassellati	New Haven, CT
Summer 2016	<b>NASA Glenn Research Center</b> <i>MARTI Researcher</i> Mentors: Justin Gray and Jeffrey Chin	Cleveland, OH

## SELECTED FELLOWSHIPS, HONORS, AND AWARDS

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2020 - 2025	NSF Graduate Research Fellowship	\$138,000
2018	Fox Fellowship, University of Cambridge	\$30,000 ( <i>declined</i> )
2017	Truman Scholarship	\$30,000
2017	Douglas A. Beck Prize, Yale University "To an outstanding student for high academic achievement, leadership potential, personal integrity, and commitment to public service"	
2017	Grand Strategy Research Grant, Yale University	\$4,000
2016	John D. Heinz Fellowship, Yale University	\$14,000

2015	Nathan Hale Scholarship, Yale University “A special distinction that reflects the university’s esteem for past and future achievements”	\$55,000
2014	The President’s Volunteer Service Award, Obama’s Council on Service and Civic Participation	
2013	National Merit Scholarship	\$2,500
2013	Appointment to the U.S. Military Academy at West Point Nominated by Senator Sherrod Brown and Congressman Steve LaTourette	(declined)
2012	U.S. Senate Page	

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## REFEREED CONFERENCE PUBLICATIONS

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- C4. [Human-Machine Collaboration for Fast Land-Cover Mapping.](#)  
Caleb Robinson, Anthony Ortiz, Kolya Malkin, Blake Elias, **Andi Peng**, Dan Morris, Bistra Dilkina, and Nebojsa Jojic.  
AAAI 2020 (oral).
- C3. [The Perils of Objectivity: Towards a Normative Framework for Fair Judicial Decision-Making.](#)  
**Andi Peng** and Malina Simard-Halm.  
AIES 2020 (spotlight).
- C2. [What You See is What You Get? The Impact of Representation Criteria on Human Bias in Hiring.](#)  
**Andi Peng**, Besmira Nushi, Emre Kiciman, Kori Inkpen, Siddharth Suri, Kori Inkpen, and Ece Kamar.  
HCOMP 2019.
- C1. [Conceptual Feasibility Study of the Hyperloop Vehicle for Next-Generation Transport.](#)  
Kenneth Decker, Jeffrey Chin, **Andi Peng**, Colin Summers, Golda Nguyen, Andrew Oberlander, Gazi Sakib, Nariman Sharifrazi, Christopher Heath, Justin Gray, and Robert Falck.  
NASA Technical Report, AIAA SciTech 2017.

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## JOURNAL PUBLICATIONS

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- J1. How different AI models affect accuracy and bias of human decision-making.  
**Andi Peng**, Besmira Nushi, Kori Inkpen, Emre Kiciman, and Ece Kamar.  
*In preparation.*

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## REFEREED WORKSHOP PUBLICATIONS

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- W3. [On the Nature of Bias Percolation: Assessing Multiaxial Collaboration in Human-AI Systems.](#)  
**Andi Peng**, Besmira Nushi, Kori Inkpen, Emre Kiciman, and Ece Kamar.  
CHI 2020, Workshop on *Human-Centered Approaches to Fair and Responsible AI*.
- W1-2. [Human-Machine Collaboration for Fast Land-Cover Mapping.](#)  
Caleb Robinson, Anthony Ortiz, Kolya Malkin, Blake Elias, **Andi Peng**, Dan Morris, Bistra Dilkina, and Nebojsa Jojic.  
ICLR 2020, Workshop on *Climate Science and Adaptation*.  
NeurIPS 2019, Workshop on *Tackling Climate Change with Machine Learning*.

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## POLICY WORK

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- Contributions made to institutional policy work.
- P3. [Report on Algorithmic Risk Assessment Tools in the U.S. Criminal Justice System.](#)  
**The Partnership on AI**. Working Group on Fairness, Transparency, and Accountability.  
2019.
- P2. [National Strategic Overview for Quantum Information Science.](#)  
**The White House**. Office of Science and Technology Policy.  
2018.

- P1. [Nigeria: Tracking and Promoting Good Governance.](#)  
**United States Institute of Peace.** Through the Yale Jackson Institute for Global Affairs.  
 2016.

## INDUSTRY EXPERIENCE

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2019 - 2020	<b>Research Canvas Incubation, Microsoft AI &amp; Research</b> <i>Applied Scientist II</i>	Redmond, WA
2017	<b>Electronic Crimes Team, Facebook</b> <i>Security Engineering Intern</i> Created threat modeling to aid investigators. Collaborated with law enforcement on counter-terrorism, sex trafficking, and state-sponsored information cases.	Menlo Park, CA
2014 - 2015	<b>IT Central Station</b> <i>Product Manager</i>	Tel Aviv, Israel

## INVITED TALKS AND PRESENTATIONS

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Jun 2020	Microsoft Research Power Lunch. Virtual (previously Redmond, WA).	C2.
Apr 2020	CHI 2020 Workshop on Fair and Responsible AI. Virtual (previously Honolulu, HI).	W2.
Feb 2020	AIES 2020 spotlight session. New York, NY.	C3.
Oct 2019	HCOMP 2019 conference session. Skamania, WA.	C2.
Jun 2019	Microsoft AI&R Diversity, Inclusion and Belonging Day. Redmond, WA.	C2., P3.
May 2019	Microsoft AI for Good Group. Redmond, WA.	C2.
Sep 2018	Microsoft Research AI Seminar. Redmond, WA.	P2.
Jan 2017	AIAA SciTech 2017 conference session. Grapevine, TX.	C1.
Aug 2016	NASA Aeronautics Research Mission Directorate. Glenn, OH.	C1.
Jun 2014	Hubei University School of International Studies. Enshi, China.	

## TEACHING

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IAP 2021	<b>MIT Electrical Engineering and Computer Science</b> 6.S090: Deep Learning for Control	Co-Head T.A.
	<b>Yale Computer Science</b>	
Fall 2017	CPSC 100 (CS50): Introduction to Computer Science	T.A.
Spring 2017	CPSC 223: Data Structures and Programming Techniques	T.A.
Spring 2016	CPSC 202: Mathematical Tools for Computer Science	T.A.
Fall 2015, 2016	CPSC 100 (CS50): Introduction to Computer Science First undergraduate head T.A. for the largest engineering course in university history. Managed a course staff of 62 for 450+ students. Had weekly teaching sections professionally filmed and produced for streaming on the course website.	Head T.A.
	<b>Yale Astrophysics</b>	
Spring 2015	ASTR 343: Gravity, Astrophysics, and Cosmology	T.A.

## PROFESSIONAL SERVICE

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<b>Reviewer</b>	CHI 2020
<b>Board of Advisors</b>	Yale Jackson School of Global Affairs, 2020 - Present
<b>Student Advisory Board</b>	Yale Psi Chi Honor Society, 2017 - 2018 Yale Jackson Institute for Global Affairs, 2016 - 2018 Yale Brady-Johnson Program in Grand Strategy, 2017 - 2018
<b>Mentor</b>	Yale FLOAT (Women and Minorities in CS), 2016 - 2018

## OTHER SERVICE

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- 2016 - 2017    **Yale Asian-American Cultural Center**  
*Peer Liaison*  
The sole upperclassman peer mentor in Berkeley College (one of 14 residential colleges at Yale). Organized diversity initiatives, programming, and events across the university at large.
- 2015 - 2016    **Yale Women's Club Soccer**  
*Captain*
- 2013 - 2015    **Teaching Peace Initiative**  
*Deputy Executive Director*  
Helped lead a student-run 501(c)(3) for teaching peace-curriculum in schools. Operational in 21 states and 3 continents at time of transition.

## TECHNICAL SKILLS

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Languages	Python, Java, C/C++, R, JavaScript, $\text{\LaTeX}$
Software	PyTorch, TensorFlow, Gym, OpenCV, Stata

## LANGUAGES (HUMAN)

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English	Native
Mandarin	Native
French	Conversational