

ANDI PENG

Microsoft AI & Research
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EDUCATION

Massachusetts Institute of Technology Ph.D. Electrical Engineering and Computer Science Computer Science and Artificial Intelligence Laboratory (CSAIL)	Fall 2020 - Cambridge, MA
Yale University , <i>cum laude</i> , GPA: 3.9/4.0 B.S. Cognitive Science B.A. Global Affairs, <i>with distinction</i>	2013 - 2018 New Haven, CT

AFFILIATIONS

Institutions represented in research and policy work.

Microsoft Research Adaptive Systems and Interaction Group	Sep 2018 - Present Redmond, WA
Yale University Jackson Institute for Global Affairs Social Robotics Lab Brady-Johnson Program in Grand Strategy	Aug 2013 - Present New Haven, CT
White House Office of Science and Technology Policy (OSTP) National Institute for Standards and Technology (NIST) Joint Quantum Institute	Jan - Sep 2018 Washington, DC
National Aeronautics and Space Administration (NASA) Glenn Research Center	May 2016 - Jan 2017 Cleveland, OH

SELECTED FELLOWSHIPS, HONORS, AND AWARDS

2018	Fox International 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"	
2016	Multidisciplinary Aeronautics Research Team Initiative, NASA	\$10,000
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 United States Military Academy at West Point Nominations from Senator Sherrod Brown and Congressman Steve LaTourette	(<i>declined</i>)

REFEREED CONFERENCE PUBLICATIONS

- [C5] **Andi Peng**, Besmira Nushi, Kori Inkpen, Emre Kiciman, and Ece Kamar. He's a paralegal and she's a lawyer? How different AI models effect accuracy and bias of human decision-making. **Under review**.
- [C4] Caleb Robinson, Anthony Ortiz, Kolya Malkin, Blake Elias, **Andi Peng**, Dan Morris, Bistra Dilkina, and Nebojsa Jojic. [Human-machine collaboration for fast land-cover mapping](#). In *Proceedings of the 34th AAAI Conference on Artificial Intelligence* (AAAI 2020). New York, NY. [Oral, 20.6% Acceptance Rate]
- [C3] **Andi Peng** and Malina Simard-Halm. [The perils of objectivity: towards a normative framework for fair judicial decision-making](#). In *Proceedings of the 3rd AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society* (AIES 2020). New York, NY. [Spotlight, 34.1% Acceptance Rate]
- [C2] **Andi Peng**, Besmira Nushi, Emre Kiciman, Kori Inkpen, Siddharth Suri, Kori Inkpen, and Ece Kamar. [What you see is what you get? The impact of representation criteria on human bias in hiring](#). In *Proceedings of the 7th AAAI Conference on Human Computation and Crowdsourcing* (HCOMP 2019). Skamania Lodge, WA. [25% Acceptance Rate]
- [C1] Kenneth Decker, Jeffrey Chin, **Andi Peng**, Colin Summers, Golda Nguyen, Andrew Oberlander, Gazi Sakib, Nariman Sharifrazi, Christopher Heath, Justin Gray, and Robert Falck. [Conceptual feasibility study of the Hyperloop vehicle for next-generation transport](#). In *Proceedings of the 55th AIAA Aerospace Sciences Meeting* (SciTech 2017). Grapevine, TX.

REFEREED WORKSHOP PUBLICATIONS

- [W2] **Andi Peng**, Besmira Nushi, Kori Inkpen, Emre Kiciman, and Ece Kamar. On the Nature of Bias Percolation: Assessing Multiaxial Collaboration in Human-AI Systems. **Under review**.
- [W1] Caleb Robinson, Anthony Ortiz, Kolya Malkin, Blake Elias, **Andi Peng**, Dan Morris, Bistra Dilkina, and Nebojsa Jojic. [Human-machine collaboration for fast land-cover mapping](#). In the *33rd Conference on Neural Information Processing Systems* (NeurIPS 2019) Workshop on *Tackling Climate Change with Machine Learning*. Vancouver, Canada.

WORK AND RESEARCH EXPERIENCE

Microsoft AI & Research <i>Applied Scientist II</i> <ul style="list-style-type: none">AI Strategy and Architecture Team	Sep 2019 - Present Redmond, WA
Microsoft Research <i>AI Resident</i> <ul style="list-style-type: none">See: Partnership on AI Report on Algorithmic Risk Assessment Tools.	Sep 2018 - Sep 2019 Redmond, WA
White House Office of Science and Technology Policy (OSTP) <i>Policy Intern</i> <ul style="list-style-type: none">Under the U.S. CTO, contributed to national quantum and AI strategy.	Jan 2018 - May 2018 Washington, DC
National Institute of Standards and Technology (NIST) <i>Research Associate</i> <ul style="list-style-type: none">Helped stand up the Quantum Economic Development Consortium.	Summer 2018 Washington, DC
Yale Computer Science Department <i>Undergraduate Researcher, advised by Joan Feigenbaum</i> <ul style="list-style-type: none">Deployment of risk assessment tools in criminology decision-making.	Spring 2017 New Haven, CT

Facebook eCrime Team <i>Security Engineering Intern</i>	Summer 2017 Menlo Park, CA
<ul style="list-style-type: none"> Threat modeling to aid investigators. Collaborated with law enforcement on counter-terrorism, sex trafficking, and state-sponsored information cases. 	
Yale Computer Science Department <i>Undergraduate Researcher, advised by Brian Scassellati</i>	Spring 2017 New Haven, CT
<ul style="list-style-type: none"> Reinforcement learning for multi-agent Sphero control and navigation. 	
U.S. Institute of Peace <i>Global Affairs Capstone, advised by William Casey King</i>	Fall 2016 New Haven, CT
<ul style="list-style-type: none"> Early-detection of Boko Haram events in Nigeria with sentiment analysis. 	
NASA Glenn Research Center <i>MARTI Researcher</i>	Summer 2016 Cleveland, OH
<ul style="list-style-type: none"> Modeling and feasibility study of the Hyperloop transportation system. 	
IT Central Station <i>Product Manager</i>	Aug 2014 - Aug 2015 Tel Aviv, Israel
<ul style="list-style-type: none"> Designed BI workflows and new site features. 	

TALKS AND PRESENTATIONS

[C3]	<i>The Perils of Objectivity: A Normative Framework for Fair Judicial Decision-Making</i> Spotlight session, AIES 2020. New York, NY.	Feb 2020
[C2]	<i>The Impact of Representation Criteria on Human Bias in Hiring</i> Conference session, HCOMP 2019: "Recruiting the Crowd". Skamania Lodge, WA.	Oct 2019
[C2]	<i>Do We Want Male Nannies? Decomposing Human and Algorithmic Biases in Hiring</i> Invited talk, Microsoft AI & R Diversity, Inclusion and Belonging Day. Redmond, WA.	Jun 2019
[C4]	<i>Human-AI Collaboration for Social Good</i> Presentation, Microsoft AI for Good. Redmond, WA.	May 2019
	<i>Federal Science Policy: Lessons from the White House</i> Presentation, Microsoft Research AI residency program. Redmond, WA.	Sep 2018
[C1]	<i>Conceptual Sizing and Feasibility Study for a Magnetic Plane Concept</i> Conference session, SciTech 2017: "Hyperloop and Future High-Speed Transportation Concept". Grapevine, TX.	Jan 2017
[C1]	<i>Conceptual Feasibility Study of the Hyperloop for Next-Generation Transport</i> Presentation to NASA Administration (Aeronautics Research Mission Directorate). NASA Glenn, OH.	Aug 2016
	<i>U.S.-China Relations and the Role of International Development</i> Invited talk, Hubei University School of International Studies. Enshi, China.	Jun 2014

TEACHING

Yale Computer Science Department <i>Teaching Assistant</i>	Fall 2017
<ul style="list-style-type: none"> CPSC 100 (CS50): Introduction to Computer Science 	
Yale Computer Science Department <i>Teaching Assistant</i>	Spring 2017

- CPSC 223: Data Structures and Programming Techniques

Yale Computer Science Department

Fall 2015 - 2016

Head Teaching Assistant

- CPSC 100 (CS50): Introduction to Computer Science. First undergraduate head TA in university history 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.

Yale Astrophysics Department

Spring 2016

Peer Tutor

- ASTR 343: Gravity, Astrophysics, and Cosmology

Yale Computer Science Department

Spring 2016

Peer Tutor

- CPSC 202: Mathematical Tools for Computer Science

PROFESSIONAL SERVICE

Reviewer

CHI 2020

Student Advisory Board

Yale Psi Chi Honor Society, 2017 - 2018
Yale Jackson Institute for Global Affairs, 2016 - 2018
Yale Brady-Johnson Program in Grand Strategy, 2017 - 2018

Mentor

Yale FLOAT (Women and Minorities in CS) 2016 - 2018

OTHER SERVICE

Yale Asian-American Cultural Center

2016 - 2017

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.

Yale Women's Club Soccer

2015 - 2017

Captain

- Managed team tryouts, practices, and social events.

Teaching Peace Initiative

2013 - 2016

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.

LANGUAGES (HUMAN)

English

Native

Mandarin

Native

French

Conversational

LOVELY PEOPLE WHO HAVE WRITTEN LETTERS FOR ME

1. **Dr. Ece Kamar**
Principal Researcher
Microsoft Research
Redmond, WA
eckamar@microsoft.com
2. **Dr. Jacob Taylor**
Assistant Director for Quantum Information Science
White House Office of Science and Technology Policy (OSTP)
Washington, DC
jacob.taylor@nist.gov
3. **Dr. Brian Scassellati**
Professor of Computer Science, Cognitive Science, and Mechanical Engineering
Yale University
New Haven, CT
brian.scassellati@yale.edu