# **ANDI PENG**

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#### **EDUCATION**

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Ent. Fall 2020	Massachusetts Institute of Technology Ph.D. Electrical Engineering and Computer Science	Cambridge, MA
2020	Computer Science and Artificial Intelligence Laboratory (CSAIL)	
2013–2018	Yale University, cum laude, GPA: 3.9/4.0	New Haven, CT
2013-2010	B.S. Cognitive Science (Advisor: Brian Scassellati)	New Haven, C1
	B.A. Global Affairs, with distinction (Advisor: William Casey King)	
SELECTED F	ELLOWSHIPS, HONORS, AND AWARDS	
2018	Fox International Fellowship, University of Cambridge (\$30,000: decl	ined)
2017	Truman Scholarship (\$30,000)	
2017	Douglas A. Beck Prize, to an outstanding student for "high academic achievement, leadership potential, personal integrity, and commitment to public service", Yale University	
2016	Multidisciplinary Aeronautics Research Team Initiative, NASA (\$10,0	000)
2016	John D. Heinz Fellowship, Yale University (\$14,000)	
2015	Nathan Hale Scholarship, "a special distinction that reflects the unit past and future achievements", Yale University (\$55,000)	versity's esteem for
2014	The President's Volunteer Service Award, Barack Obama's Council of Participation	on Service and Civic
2013	National Merit Scholarship (\$2,500)	
2013	Appointment to the United States Military Academy at West Point, no Senator Sherrod Brown (declined)	omination from U.S.

#### REFEREED CONFERENCE PUBLICATIONS

- [C5] Andi Peng, Emre Kiciman, Besmira Nushi, Kori Inkpen, 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] Andi Peng and Malina Simard-Halm. The perils of objectivity: towards a normative framework for fair judicial decision-making. To appear in *Proceedings of the 3rd AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society* (AIES 2020). New York, NY. [34.1% Acceptance Rate]

- [C3] 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. To appear in *Proceedings of the 34th AAAI Conference on Artificial Intelligence* (AAAI 2020). New York, NY. [Oral, 20.6% 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

[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 *Tackling Climate Change with Machine Learning Workshop* at the *33rd Conference on Neural Information Processing Systems* (NeurIPS 2019). Vancouver, Canada.

#### WORK AND RESEARCH EXPERIENCE

Present Sep 2018 –Sep 2019	Applied Scientist II, <b>Microsoft AI &amp; Research</b> AI Resident, <b>Microsoft Research</b> Collaborators: Ece Kamar, Besmira Nushi, Nebojsa Jojic, Emre Kiciman, Kori See: Partnership on AI Report on Algorithmic Risk Assessment Tools.	Redmond, WA Redmond, WA Inkpen
Jan-Sep 2018	Policy Intern, White House OSTP Research Associate, National Institute of Standards and Technology (	Washington, DC (NIST)
	Under the U.S. CTO, contributed to national quantum+AI strategy and helped stand up the Quantum Economic Development Consortium.	
Spring 2017	Undergraduate Researcher, <b>Yale Computer Science Department</b> <i>Advisor: Joan Feigenbaum</i>	New Haven, CT
	The impact of risk assessment tools on procedural justice in criminology decision-making.	
Summer	Security Engineering Intern, Facebook eCrime Team	Menlo Park, CA
2017	Threat modeling to aid investigators. Collaborated with law enforcement on counter-terrorism, sex trafficking, and state-sponsored information cases.	
Spring 2017	Undergraduate Researcher, <b>Yale Computer Science Department</b> <i>Advisor: Brian Scassellati</i>	New Haven, CT
	Reinforcement learning for multi-agent Sphero control. Automatic path P- or PID-control for navigation.	n initialization and

Fall 2016	Global Affairs Capstone, <b>U.S. Institute of Peace</b> *Advisor: William Casey King  Washington, DC	
	Early-detection of Boko Haram events in Nigeria with sentiment analysis.	
Summer 2016	MARTI Researcher, <b>NASA Glenn Research Center</b> Advisors: Jeffrey Chin and Justin Gray	
	System modeling and feasibility study of the Hyperloop vehicle.	
TALKS AND	PRESENTATIONS	
Oct 2019	The Impact of Representation Criteria on Human Bias in Hiring [C2] Conference session, HCOMP 2019: "Recruiting the Crowd". Skamania Lodge, WA.	
Jun 2019	Do We Want Male Nannies? Decomposing Human and Algorithmic Biases in Hiring [C2] Invited talk, Microsoft AI & R Diversity, Inclusion and Belonging Day. Redmond, WA.	
May 2019	Human-AI Collaboration for Social Good [C3] Presentation, Microsoft AI for Good. Redmond, WA.	
Sep 2018	Federal Science Policy: Lessons from the White House Presentation, AI residency program, Microsoft Research. Redmond, WA.	
Jan 2017	Conceptual Sizing and Feasibility Study for a Magnetic Plane Concept [C1] Conference session, SciTech 2017: "Hyperloop and Future High-Speed Transportation Concept". Grapevine, TX.	
Aug 2016	Conceptual Feasibility Study of the Hyperloop for Next-Generation Transport [C1] Presentation to NASA Administration (Aeronautics Research Mission Directorate). Cleveland, OH.	
June 2014	U.SChina Relations and the Role of International Development Invited talk, School of International Studies, Hubei University for Nationalities. Hubei, China.	
TEACHING		
Fall 2017	Teaching Assistant, CPSC 100 (CS50): Introduction to Computer Science Yale	
Spring 2017	Teaching Assistant, CPSC 223: Data Structures and Programming Techniques  Yale	
Fall 2015–16	Head Teaching Assistant, CPSC 100 (CS50): Introduction to Computer Science Yale	
	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

Yale

Peer Tutor, ASTR 343: Gravity, Astrophysics, and Cosmology

Peer Tutor, CPSC 202: Mathematical Tools for Computer Science

Spring 2016

Spring 2016

#### PROFESSIONAL SERVICE

Reviewer	CHI 2020
2016-2018	Student Advisory Committee, Yale Computer Science Department
2015-2018	Mentor, Yale FLOAT (Women and Minorities in CS)

LEADERSHIP AND COMMUNITY SERVICE		
2016–2018	Student Advisory Board, Yale Jackson Institute for Global Affairs	
	Implemented recommendations to included establishing a pre-registration system, eliminating tracks within the major, and creating a new quantitative core sequence.	
2017–2018	Student Advisory Board, Yale Brady-Johnson Program in Grand Strategy	
2016–2017	Peer Liaison, Yale Asian-American Cultural Center	
	Served as the sole upperclassman mentor in Berkeley College (one of 14 residential colleges at Yale). Organized diversity initiatives, programming, and events across the university at large.	
2016–2017	Captain, Yale Women's Club Soccer	
2016–2017	Executive Board, Yale Psi Chi Chapter (international honor society in psychology)	
2013–2016	Deputy Executive Director, Teaching Peace Initiative	
	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

#### **LETTER WRITERS**

#### 1. Dr. Ece Kamar

Principal Researcher Microsoft Research Redmond, WA eckamar@microsoft.com

#### Dr. Jacob Taylor 2.

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