ANDI PENG

CONTACT INFORMATION

Microsoft AI & Research
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EDUCATION

Ph.D. **Massachusetts Institute of Technology** — Eventually
Electrical Engineering and Computer Science — Cambridge, MA
Computer Science and Artificial Intelligence Laboratory (CSAIL)

B.S., **Yale University** — 2013 - 2018
B.A. *cum laude*, GPA: 3.9/4.0 — New Haven, CT
Cognitive Science
Thesis: An Integrated Machine Learning Approach to Studying Terrorism

Global Affairs, *with distinction*
Capstone: Early Detection of Boko Haram Attacks in Nigeria

AFFILIATIONS

Microsoft Research, Adaptive Systems and Interaction Group — Sep 2018 - Present
AI Resident — Redmond, WA
Mentors: Ece Kamar, Besmira Nushi, Emre Kiciman, Kori Inkpen, Nebojsa Jojic

White House Office of Science and Technology Policy (OSTP) — Jan - Sep 2018
National Institute for Standards and Technology (NIST) — Washington, DC
Policy Intern/Research Associate
Mentor: Jake Taylor

Yale University, Social Robotics Lab — Aug 2016 - May 2018
Undergrad Researcher — New Haven, CT
Mentor: Brian Scassellati

NASA Glenn Research Center — May 2016 - Feb 2017
MARTI Researcher — Cleveland, OH
Mentors: Justin Gray, Jeffrey Chin

SELECTED FELLOWSHIPS, HONORS, AND AWARDS

2020	NSF Graduate Research Fellowship	$138,000
2018	Fox International Fellowship, University of Cambridge	$30,000 *(declined)*
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	Brady-Johnson 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 United States Military Academy at West Point Nominations from Senator Sherrod Brown and Congressman Steve LaTourette	*(declined)*

REFEREED CONFERENCE PUBLICATIONS

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.
Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI 2020).
[Oral, 20.6% Acceptance Rate]

C3. The Perils of Objectivity: Towards a Normative Framework for Fair Judicial Decision-Making.
Andi Peng and Malina Simard-Halm.
Proceedings of the 3rd AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES 2020).
[Spotlight, 34.1% Acceptance Rate]

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.
Proceedings of the 7th AAAI Conference on Human Computation and Crowdsourcing (HCOMP 2019).
[25.0% Acceptance Rate]

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.
Proceedings of the 55th AIAA Aerospace Sciences Meeting (SciTech 2017).

JOURNAL PUBLICATIONS

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

REFEREED WORKSHOP PUBLICATIONS

W2. 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. 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*.

POLICY CONTRIBUTIONS

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

Microsoft AI & Research — Sep 2019 - Present
Applied Scientist II — Redmond, WA

- AI Strategy and Architecture Team

Facebook eCrime Team — Summer 2017
Security Engineering Intern — Menlo Park, CA

- Threat modeling to aid investigators. Collaborated with law enforcement on counter-terrorism, sex trafficking, and state-sponsored information cases.

IT Central Station — Aug 2014 - Aug 2015
Product Manager — Tel Aviv, Israel

- Designed BI workflows and new site features.

INVITED TALKS AND PRESENTATIONS

C2.	Microsoft Research Power Lunch. Online (previously Redmond, WA).	Jun 2020
W2.	Workshop on Fair and Responsible AI, CHI 2020. Online (previously Honolulu, HI).	Apr 2020
C3.	Spotlight, AIES 2020. New York, NY.	Feb 2020
C2.	Conference session, HCOMP 2019. Skamania, WA.	Oct 2019
C2.	Microsoft AI&R Diversity, Inclusion and Belonging Day. Redmond, WA.	Jun 2019
C4.	AI for Good Group, Microsoft. Redmond, WA.	May 2019
P2.	Microsoft Research AI Seminar. Redmond, WA.	Sep 2018
C1.	Conference session, SciTech 2017. Grapevine, TX.	Jan 2017
C1.	Aeronautics Research Mission Directorate, NASA. Glenn, OH.	Aug 2016
	School of International Studies, Hubei University. Enshi, China.	Jun 2014

TEACHING

Yale Computer Science Department
Teaching Assistant

CPSC 100 (CS50): Introduction to Computer Science	Fall 2017
CPSC 223: Data Structures and Programming Techniques	Spring 2017
CPSC 202: Mathematical Tools for Computer Science	Spring 2016

Head Teaching Assistant

CPSC 100 (CS50): Introduction to Computer Science	Fall 2015, 2016

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
Teaching Assistant

ASTR 343: Gravity, Astrophysics, and Cosmology	Spring 2015

PROFESSIONAL SERVICE

Reviewer	CHI 2020
Board of Advisors	Yale Jackson School of Global Affairs, 2020 - Present
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