ANDI PENG

Microsoft AI & Research
Building 99, Redmond, WA, 98122
https://andipeng.com | andipeng@microsoft.com

EDUCATION

Ent. Fall 2020	**Massachusetts Institute of Technology** Ph.D. Electrical Engineering and Computer Science Computer Science and Artificial Intelligence Laboratory (CSAIL)	Cambridge, MA
2013–2018	**Yale University**, *cum laude*, GPA: 3.9/4.0 B.S. Cognitive Science (Advisor: Brian Scassellati) B.A. Global Affairs, *with distinction* (Advisor: William Casey King)	New Haven, CT

SELECTED FELLOWSHIPS, HONORS, AND AWARDS

2018	Fox International Fellowship, University of Cambridge ($30,000: *declined*)
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 ($10,000)
2016	John D. Heinz Fellowship, Yale University ($14,000)
2015	Nathan Hale Scholarship, "a special distinction that reflects the university's esteem for past and future achievements", Yale University ($55,000)
2014	The President's Volunteer Service Award, Barack 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, nominated by U.S. Senator Sherrod Brown (*declined*)

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

[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

Present — Applied Scientist II, **Microsoft AI & Research** — Redmond, WA

Sep 2018 –Sep 2019 — AI Resident, **Microsoft Research** — Redmond, WA

Collaborators: Ece Kamar, Besmira Nushi, Nebojsa Jojic, Emre Kiciman, Kori Inkpen

See: Partnership on AI Report on Algorithmic Risk Assessment Tools.

Jan–Sep 2018 — Policy Intern, **White House OSTP** — Washington, DC

Research Associate, **National Institute of Standards and Technology (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, **Yale Computer Science Department** — New Haven, CT

Advisor: Joan Feigenbaum

The impact of risk assessment tools on procedural justice in criminology decision-making.

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

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

Spring 2017 — Undergraduate Researcher, **Yale Computer Science Department** — New Haven, CT

Advisor: Brian Scassellati

Reinforcement learning for multi-agent Sphero control. Automatic path initialization and P- or PID-control for navigation.

Fall 2016	Global Affairs Capstone, **U.S. Institute of Peace** *Advisor: William Casey King* Early-detection of Boko Haram events in Nigeria with sentiment analysis.	Washington, DC
Summer 2016	MARTI Researcher, **NASA Glenn Research Center** *Advisors: Jeffrey Chin and Justin Gray* System modeling and feasibility study of the Hyperloop vehicle.	Cleveland, OH

TALKS AND PRESENTATIONS

Feb 2020	*The Perils of Objectivity: A Normative Framework for Fair Judicial Decision-Making* [C3] Spotlight session, AIES 2020. New York, NY.
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* [C4] Presentation, Microsoft AI for Good. Redmond, WA.
Sep 2018	*Federal Science Policy: Lessons from the White House* Presentation, Microsoft Research AI residency program. 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). NASA Glenn, OH.
June 2014	*U.S.-China Relations and the Role of International Development* Invited talk, Hubei University School of International Studies. Enshi, 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** 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
Spring 2016	Peer Tutor, **ASTR 343: Gravity, Astrophysics, and Cosmology**	Yale

Spring 2016 Peer Tutor, **CPSC 202: Mathematical Tools for Computer Science** Yale

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 Honor Society**

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

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