

Andi Peng

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Applied Scientist II, Microsoft AI & Research

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EDUCATION

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| Entering 2020 | Massachusetts Institute of Technology Ph.D. Student, Electrical Engineering and Computer Science Computer Science and Artificial Intelligence Laboratory (CSAIL) | Cambridge, MA |
| 2013 - 2018 | Yale University , <i>Cum Laude</i> , GPA: 3.9/4.0 B.S. Cognitive Science (Advisor: Brian Scassellati) Thesis: An Integrated Machine Learning Approach to Studying Terrorism B.A. Global Affairs, <i>with distinction</i> (Advisor: William Casey King) Capstone: Early Detection for Screening of Boko Haram Attacks in Nigeria | New Haven, CT |

FELLOWSHIPS, HONORS, & AWARDS

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| 2018 | Fox International Fellowship, University of Cambridge (\$30,000: <i>declined</i>) |
| 2017 | Truman Scholarship (\$30,000) Douglas A. Beck Prize, to an outstanding student for “high academic achievement, leadership potential, personal integrity, and commitment to public service”, Yale Brady-Johnson Grand Strategy Research Grant, Yale (\$4,000) |
| 2016 | Multidisciplinary Aeronautics Research Team Initiative, NASA (\$10,000) John D. Heinz Fellowship, Yale (\$14,000) Shusterman Grant, Yale (\$6,000) |
| 2015 | Nathan Hale Scholarship, “a special distinction that reflects the university’s esteem for past and future achievements”, Yale (\$55,000) |
| 2014 | The President’s Volunteer Service Award, Barack Obama’s Council on Service and Civic Participation |
| 2013 | National Merit Scholarship (\$2,500) Appointment to the United States Military Academy at West Point (<i>declined</i>) |

REFEREED CONFERENCE PUBLICATIONS

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| [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 <i>Proceedings of the 3rd AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society</i> (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 <i>Proceedings of the 34th AAAI Conference on Artificial Intelligence</i> (AAAI 2020). New York, NY. [Oral, 20.6% Acceptance Rate] |
| [C2] | Andi Peng , Besmira Nushi, Emre Kiciman, Kori Inkpen, Siddharth Suri, and Ece Kamar. What you see is what you get? The impact of representation criteria on human bias in hiring . In <i>Proceedings of the 7th AAAI Conference on Human Computation and Crowdsourcing</i> (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 & RESEARCH EXPERIENCE

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| Sep 2019 - Sep 2018 -19 | Applied Scientist II, Microsoft AI & Research AI Resident, Microsoft Research Collaborators: Ece Kamar, Besmira Nushi, Nebojsa Jojic, Emre Kiciman, Kori Inkpen See: Partnership on AI Report on Algorithmic Risk Assessment Tools in the U.S. Criminal Justice System . | Redmond, WA Redmond, WA |
| Jan - Aug 2018 | Policy Intern, White House Office of Science and Technology Policy (OSTP) Research Associate, National Institute of Standards and Technology (NIST) Contributed to national quantum + AI strategy and helped stand up the Quantum Economic Development Consortium. | Washington, DC |
| Spring 2018 | Undergraduate Thesis, Yale Cognitive Science Department Advisor: Brian Scassellati Integrated ML + political science approaches to understanding terrorism. | New Haven, CT |
| Spring 2018 | Undergraduate Researcher, Yale Computer Science Department Advisor: Joan Feigenbaum The impact of risk assessment tools on procedural justice in criminology decision-making. | New Haven, CT |
| Summer 2017 | Security Engineering Intern, Facebook eCrime Team Threat modeling to aid investigators in proactive and responsive queries. Collaborated with law enforcement on counter-terrorism, sex trafficking, and state-sponsored information cases. | Menlo Park, CA |
| Spring 2017 | Undergraduate Researcher, Yale Computer Science Department Advisor: Brian Scassellati RL for multi-agent Sphero control. Automatic path initialization and P- or PID-control for navigation. | New Haven, CT |
| Fall 2016 | Global Affairs Capstone Project, U.S. Institute of Peace Advisor: William Casey King Early-detection screening of Boko Haram attacks in Nigeria using sentiment analysis. | Washington, DC |
| Summer 2016 | MARTI Researcher, NASA Glenn Research Center Advisors: Jeffrey Chin and Justin Gray Full system modeling and feasibility study of the Hyperloop. | Cleveland, OH |

TALKS & PRESENTATIONS

- Oct 2019 *What You See Is What You Get? The Impact of Representation Criteria on Human Bias in Hiring* [C2]

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| | Conference session, HCOMP 2019: "Recruiting the Crowd". Skamania Lodge, WA. |
| Jun 2019 | <i>Do We Want Male Nannies? Decomposing Human and Algorithmic Biases in Hiring</i> [C2] Invited talk, Microsoft AI&R Diversity, Inclusion and Belonging Day. Redmond, WA. |
| May 2019 | <i>Human-AI Collaboration for Social Good</i> [C3] Presentation, Microsoft AI for Good. Redmond, WA. |
| Sep 2018 | <i>Federal Science Policy: Lessons from the White House</i> AI residency program, Microsoft Research. Redmond, WA. |
| Jan 2017 | <i>Conceptual Sizing and Feasibility Study for a Magnetic Plane Concept</i> [C1] Conference session, SciTech 2017: "Hyperloop and Future High-Speed Transportation Concepts". Grapevine, TX. |
| Aug 2016 | <i>Conceptual Feasibility Study of the Hyperloop for Next-Generation Transport</i> [C1] Presentation to NASA Administration (Aeronautics Research Mission Directorate). Cleveland, OH. |
| Jun 2014 | <i>U.S.-China Relations and the Role of International Development</i> Invited talk, Hubei University for Nationalities School of International Studies. Hubei, China. |

TEACHING

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

PROFESSIONAL SERVICE

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

LEADERSHIP & COMMUNITY SERVICE

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| 2016-2018 | Student Advisory Board, Yale Jackson Institute for Global Affairs Implemented recommendations to include establishing a pre-registration system, eliminating tracks within the major, and creating a new quantitative core sequence. |
| 2017 | 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 and cognitive science) |

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)

REFERENCES

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