ANDI PENG

CONTACT

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EDUCATION

Massachusetts Institute of Technology 2020 - Present
Ph.D. Electrical Engineering and Computer Science
Co-advised by Pulkit Agrawal and Julie Shah

Yale University, *cum laude, with distinction in major* 2013 - 2018
B.S. Cognitive Science
B.A. Global Affairs
Awarded Douglas A. Beck Prize *for high academic achievement, leadership potential, personal integrity, and commitment to public service*

RESEARCH POSITIONS

Summer 2021	Research Intern, **Facebook AI Research (FAIR)** Mentors: Aravind Rajeswaran and Vikash Kumar	Pittsburgh, PA
2018 - 2020	AI Resident, **Microsoft Research** Mentors: Ece Kamar, Besmira Nushi, Emre Kiciman, Kori Inkpen	Redmond, WA
2018	Policy Intern, **White House Office of Science and Technology Policy (OSTP)** Research Associate, **National Institute for Standards and Technology (NIST)** Mentor: Jake Taylor	Washington, DC
2016 - 2018	Undergraduate Researcher, **Yale University** Advisor: Brian Scassellati	New Haven, CT
Summer 2016	MARTI Researcher, **NASA Glenn Research Center** Mentors: Justin Gray and Jeffrey Chin	Cleveland, OH

FELLOWSHIPS, HONORS, AND AWARDS

2020 - 2025	NSF Graduate Research Fellowship	$138,000
2022	FTX Future Fund Regrant	$42,600
2018	Fox Fellowship, University of Cambridge	$30,000 *(declined)*
2017	Truman Scholarship	$30,000
2017	Douglas A. Beck Prize, Yale University	
2017	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, Barack Obama's Council on Service and Civic Participation	
2013	National Merit Scholarship	$2,500
2013	Appointment to the U.S. Military Academy at West Point *Nominated by Senator Sherrod Brown and Congressman Steve LaTourette*	*(declined)*

CONFERENCE PUBLICATIONS

C5. Investigations of Performance and Bias in Human-AI Teamwork in Hiring
Andi Peng, Besmira Nushi, Kori Inkpen, Emre Kiciman, Ece Kamar.
AAAI 2022 (oral, top 4%)
Presented at CHI 2022, Workshop on Trust and Reliance in Human-AI Teams

C4. Human-Machine Collaboration for Fast Land-Cover Mapping
Caleb Robinson, Anthony Ortiz, Kolya Malkin, Blake Elias, **Andi Peng**, Dan Morris, Bistra Dilkina, Nebojsa Jojic.
AAAI 2020 (oral, top 3%)
Presented at ICLR 2020, Workshop on *Climate Science and Adaptation*
Presented at NeurIPS 2019, Workshop on *Tackling Climate Change with Machine Learning*

C3. The Perils of Objectivity: Towards a Normative Framework for Fair Judicial Decision-Making
Andi Peng, Malina Simard-Halm.
AIES 2020

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, Ece Kamar.
HCOMP 2019

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, Robert Falck.
AIAA SciTech 2017
Archived as NASA Technical Report

JOURNAL PUBLICATIONS

J1. Make Greenhouse-Gas Accounting Reliable—Build Interoperable Systems
Amy Luers, Leehi Yona, Christopher Field, Robert Jackson, Katharine Mach, Benjamin Cashore, Cynthia Elliott, Lauren Gifford, Colleen Honigsberg, Lena Klaassen, Damon Mathews, **Andi Peng**, Christian Stoll, Marian Van Pelt, Ross Virginia, Lucas Joppa.
Nature, 2022

WORKSHOP PUBLICATIONS

W3. Aligning Robot Representations with Humans
Andreea Bobu, **Andi Peng**.
ICRA 2022, Workshop on *Collaborative Robots and Work of the Future*
RSS 2022, Workshop on *Social Intelligence in Humans and Robots*

W2. Strengthening Subcommunities: Towards Sustainable Growth in AI Research
Andi Peng, Jessica Zosa Forde, Yonadav Shavit, Jonathan Frankle.
ICLR 2022, Workshop on *ML Evaluation Standards*

W1. On the Nature of Bias Percolation: Assessing Multiaxial Collaboration in Human-AI Systems
Andi Peng, Besmira Nushi, Kori Inkpen, Emre Kiciman, Ece Kamar.
CHI 2020, Workshop on *Human-Centered Approaches to Fair and Responsible AI*

POLICY WORK

P4. Led and evaluated grant on Improving the ML Publishing Process.
Schmidt Futures. ICLR 2022 ML Evaluation Standards Workshop.
Apr 2022

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.
Apr 2019

P2. National Strategic Overview for Quantum Information Science
The White House. Office of Science and Technology Policy.
Sep 2018

P1. Nigeria: Tracking and Promoting Good Governance
United States Institute of Peace. Through the Yale Jackson School of Global Affairs.
Dec 2016

INDUSTRY EXPERIENCE

2021 - 2022	Part-time Researcher, **Schmidt Futures**	New York, NY
2019 - 2020	Applied Scientist II, **Microsoft AI & Research**	Redmond, WA
Summer 2017	Security Engineering Intern, **Facebook eCrime Team**	Menlo Park, CA
	Created ML threat modeling to aid federal investigators. Collaborated with law enforcement on counter-terrorism, sex trafficking, and state-sponsored information cases.	
2014 - 2015	Product Manager, **IT Central Station**	Tel Aviv, Israel

INVITED TALKS

2022	FAccT SEDL Workshop	Seoul, South Korea
2022	Yale Cyber Leadership Forum	New Haven, CT
2021	MIT GW6 Research Summit	Cambridge, MA
2021	Facebook AI Research (FAIR) Robotics Seminar	Pittsburgh, PA
2020	Microsoft Research Adaptive Systems and Interaction Group	Virtual
2019	Microsoft AI&R Diversity, Inclusion and Belonging Day	Redmond, WA
2019	Microsoft AI for Good Research Group	Redmond, WA
2018	Microsoft Research AI Seminar	Redmond, WA
2016	NASA Aeronautics Research Mission Directorate	Glenn, OH
2014	Hubei University School of International Studies	Enshi, China

ORGANIZED WORKSHOPS

2022	CoRL Workshop on Aligning Robot Representations with Humans	Auckland, New Zealand

TEACHING

	MIT Electrical Engineering and Computer Science	
IAP 2021	6.S090: Deep Learning for Control	Co-Head T.A.
	Yale Computer Science	
Fall 2017	CPSC 100 (CS50): Introduction to Computer Science	T.A.
Spring 2017	CPSC 223: Data Structures and Programming Techniques	T.A.
Spring 2016	CPSC 202: Mathematical Tools for Computer Science	T.A.
Fall 2015, 2016	CPSC 100 (CS50): Introduction to Computer Science	Head T.A.
	First undergraduate head T.A. for the largest engineering course in university history (managed course staff of 62). Had weekly teaching sections professionally filmed and produced for streaming.	
	Yale Astrophysics	
Spring 2015	ASTR 343: Gravity, Astrophysics, and Cosmology	T.A.

SERVICE

Program Committee

AAAI Conference on Artificial Intelligence (AAAI)	2023

Reviewing

Conference on Neural Information Processing Systems (NeurIPS)	2022
Robotics: Science and Systems (RSS)	2022
IEEE International Conference on Robotics and Automation (ICRA)	2022
International Conference on Learning Representations (ICLR)	2022
AAAI Conference on Artificial Intelligence (AAAI)	2021, 2022

ACM Conference on Human Factors in Computing Systems (CHI) 2020, 2021, 2022
AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society (AIES) 2020

University Service
Board of Advisors, Yale Jackson School of Global Affairs 2020, 2021, 2022

Department Service
Executive Board, Yale Psi Chi Honor Society 2017, 2018
Student Advisory Board, Yale Jackson Institute for Global Affairs 2016, 2017, 2018
Student Advisory Board, Yale Brady-Johnson Program in Grand Strategy 2017, 2018

Mentorship
Yale FLOAT (Women and Minorities in CS) 2016, 2017, 2018

Leadership
Peer Liaison, Yale Asian-American Cultural Center 2017, 2018
Sole upperclassman peer mentor in Berkeley College (one of 14 residential colleges at Yale).
Captain, Yale Women's Club Soccer 2015, 2016
Deputy ED, Teaching Peace Initiative 2013, 2014, 2015
Helped run a national student-run 501(c)(3) nonprofit for teaching peace-curriculum in schools.

RESEARCH MENTORSHIP

2022 - Present Marcel Torne Villasevil (MEng at Harvard)
Research on continual learning from human feedback.

Fall 2021 Jerry Mao (Undergraduate at MIT)
Research on DARPA Machine Common Sense Project.

TECHNICAL SKILLS

Languages Python, Java, C/C++, R, JavaScript, LaTeX
Software PyTorch, TensorFlow, Gym, OpenCV, Stata

LANGUAGES (HUMAN)

English Native
Mandarin Native
French Conversational