Angelina Wang

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Education

2019- **Ph.D. Computer Science**, Princeton University
M.A. Computer Science
Advisor: Olga Russakovsky
Research Interests: machine learning fairness, algorithmic bias

2015-2019 **B.S. Electrical Engineering and Computer Science**, *Philosophy minor*, UC Berkeley
Advisors: Pieter Abbeel, Aviv Tamar
Major GPA: 3.96/4.00

Awards

National Science Foundation Graduate Research Fellowship Program (NSF GRFP)

National Defense Science and Engineering Graduate Fellowship Program (NDSEG) (declined)

Mark D. Weiser Excellence in Computing Scholarship (Merit-based award for 1-2 students in Berkeley EECS)

Regents and Chancellors' Scholar (top 2% of incoming class)

Berkeley EECS Honors Program, concentration in Philosophy

Member of Phi Beta Kappa (Academic Honor Society)

Member of Eta Kappa Nu (Electrical and Computer Engineering Honors Society)

Member of Tau Beta Pi (Engineering Honors Society)

Publications

Taxonomizing and Measuring Representational Harms: A Look at Image Tagging
J. Katzman*, A. Wang*, M. Scheuerman, S. L. Blodgett, K. Laird, H. Wallach, S. Barocas. *AAAI 2023* (1721/8777, 20% acceptance)

Manipulative Tactics are the Norm in Political Emails: Evidence from 100K emails from the 2020 U.S. Election Cycle
A. Mathur, A. Wang, C. Schwemmer, M. Hamin, B. M. Stewart, A. Narayanan. *Big Data & Society 2023*

Towards Intersectionality in Machine Learning: Including More Identities, Handling Underrepresentation, and Performing Evaluation
A. Wang, V. V. Ramaswamy, O. Russakovsky. *FAccT 2022* (179/711, 25% acceptance)

Measuring Representational Harms in Image Captioning
A. Wang, S. Barocas, K. Laird, H. Wallach. *FAccT 2022* (179/711, 25% acceptance)

REVISE: A Tool for Measuring and Mitigating Bias in Visual Datasets
A. Wang, A. Liu, R. Zhang, A. Kleiman, L. Kim, D. Zhao, I. Shirai, A. Narayanan, O. Russakovsky. *IJCV 2022*

Understanding and Evaluating Racial Biases in Image Captioning
D. Zhao, A. Wang, O. Russakovsky. *ICCV 2021* (1617/6236, 26% acceptance)

Directional Bias Amplification
A. Wang, O. Russakovsky. *ICML 2021* (1184/5513, 21% acceptance)

The Limits of Global Inclusion in AI Development
A. Chan*, C. T. Okolo*, Z. Terner*, A. Wang*. *AAAI 2021 Workshop on Reframing Diversity in AI - Spotlight*

REVISE: A Tool for Measuring and Mitigating Bias in Visual Datasets
A. Wang, A. Narayanan, O. Russakovsky. *ECCV 2020 - Spotlight* (1360/5150, 26% acceptance – 160/5150 for spotlight)

Learning Robotic Manipulation through Visual Planning and Acting
A. Wang, T. Kurutach, K. Liu, P. Abbeel, A. Tamar. *RSS 2019* (85/272, 31% acceptance)

Safer Classification by Synthesis
W. Wang, A. Wang, A. Tamar, X. Chen, P. Abbeel. *NeurIPS 2017 Aligned AI Workshop*

Work Experience

Summer 2021 **Microsoft**, *Research Intern*, Remote
- Measure representational harms in image captioning with MSR FATE (Fairness, Accountability, Transparency, and Ethics) and Cognitve Services teams
- Mentors: Solon Barocas, Hanna Wallach, Lijuan Wang, Zhe Gan

Summer 2019 **Google**, *Software Engineering Intern*, Mountain View, CA
- Worked on Google Shopping infrastructure team to build out new features for metric reporting
- Contributed side project of supplementing filtering by different metrics for fairness evaluation

Jan 2017 - Oct 2018 **Archer (Technology Nonprofit, archerimpact.com)**, *Engineering Lead*, Berkeley, CA
- Use Node and React to build web app for conducting open source investigations based off user interviews
- Visualize public data and create adjacency matrix scheme to manipulate entity connections using D3
- Present products in D.C. and RightsCon 2018 in Toronto, receiving medal from U.S. Treasury

Summer 2017 **Google**, *Engineering Practicum Intern*, Seattle, WA
- Worked on infrastructure team to improve internal streaming data processing system

Teaching

Spring 2021 **Fairness in Machine Learning (COS 534)**, *Teaching Assistant*, Princeton, NJ

Fall 2020 **Fairness in Visual Recognition (COS IW 08)**, *Teaching Assistant*, Princeton, NJ

Fall 2020 **Computer Vision (COS 429)**, *Teaching Assistant*, Princeton, NJ

July 2020 **AI4ALL (AI for Historically Marginalized Talent)**, *Instructor*, Princeton, NJ

July 2018 - May 2019 **Machine Learning @ Berkeley**, *Education Officer*, Berkeley, CA

July 2018 - May 2019 **Robot Learning Lab Outreach**, *Lead*, Berkeley, CA

Fall 2018 **Introduction to Machine Learning (CS189/289A)**, *Academic Intern*, Berkeley, CA

Organizing

Responsible Computer Vision Workshop at ECCV 2022

Responsible Computer Vision Workshop at CVPR 2021

Reviewing

FAccT 2023

AIES 2022

CVPR 2022, 2023

ECCV 2022

Responsible Computer Vision Workshop at CVPR 2021, ECCV 2022

International Journal of Computer Vision (IJCV)

Extracurriculars and Outreach

Fall 2021 - present	**Princeton Pre-Application Support Program** - coordinate department-wide matching of PhD applicants to current students to help review application personal statement; grants application fee waivers to all participants (159 people)
Fall 2020 - present	**Bias in AI Reading Group** - organize biweekly reading group centered on topics of bias and fairness in machine learning at Princeton University
Fall 2021 - Fall 2022	**Q'nnections Mentor** - mentor for LGBTQ+ students at Princeton
Fall 2019 - Fall 2022	**Out in Tech Mentor** - mentor for LGBTQ+ youth ages 17-24 interested in technology
Fall 2020 - Spring 2022	**RISE (Research Inclusion Social Event)** - co-organize monthly social event with discussions centered around diversity and inclusion issues in computer science
Fall 2020	**JuST (Technology for a Just Society)** - moderate anti-racist reading group discussions
Fall 2019 - Spring 2020	**Society of Women Engineers** - mentor for undergraduates
present	**Juggling** - favorite patterns: Jim's 3 count, Madness Mildness, Factory