Wesley Hanwen Deng

408-893-1312   hanwend@cs.cmu.edu

Research Interests	Responsible AI; Human-AI Interaction; Algorithm Auditing; Organizational Science; Crowdsourcing; Social Computing; Fairness, Accountability, and Transparency.

Education

Carnegie Mellon University, Pittsburgh, PA
Ph.D. in Human-Computer Interaction, School of Computer Science   2021 - now
Advisors: Ken Holstein & Motahhare Eslami.

University of California, Berkeley, Berkeley, CA
B.A. in Computer Science   2017 - 2020
Highest Distinction & EECS Research Honor
Research Advisors: Niloufar Salehi & Kimiko Ryokai.

Honor and Awards

Award Winner of The Notre Dame-IBM Tech Ethics Lab Call for Proposal
$60,000, Norte Dame-IBM Technology Ethics Lab
with Motahhare Eslami, Ken Holstein, Jason Hong, and Toby Jia-jun Li.   2024
Awarded to "practical and applied interdisciplinary research in tech ethics [...] that grapple with [socio-technical] challenges [around Large-scale models], providing new insights or suggesting innovative solutions."

Microsoft Research AI & Society Fellow
$45,000, Microsoft Research
with Ken Holstein, Motahhare Eslami, Jason Hong.   2024
Awarded to "eminent scholars and leading experts in various fields to support the research challenges [on] 'Regulating AI in Light of the Challenges of Doing Responsible AI in Practice' with Microsoft researchers."

Responsible AI Internal Workshop Invited Speaker, TikTok
$2,700, TikTok, NYC Office   2024
Travel grant and honorarium for participating in internal workshop related to Responsible AI and AI policy hosted by TikTok, New York City. Receiving summer internship offer after the workshop.

Department Nominee, Graduate Student Service Award
(Not recommended for final award) Carnegie Mellon University
Nominated by Brad A. Myers and Geoff Kaufman   2024
Awarded "to a graduate student to recognize their outstanding contributions via volunteer service to a CMU department, college, or the broader academic community, especially with respect to supporting fellow graduate students."

Special Recognitions for Outstanding Reviews
Computer-Supported Cooperative Work and Social Computing (CSCW)   2024

AI Ethics & Society Workshop Invited Participants
$1,500, Allen Institute for AI   2023
Honorarium and travel grant for attending ethics and society workshop hosted by Allen Institute for AI. Receiving part-time internship offer after the workshop.

Special Recognitions for Outstanding Reviews
CHI Conference on Human Factors in Computing Systems (CHI)   2023

CMU Graduate Student Travel Grant,
$750, Carnegie Mellon University   2022

CERES (Connecting the EdTech Research EcoSystem) Fellowship
through Jacobs Foundation, Carnegie Mellon University
with Ken Holstein, Amy Ogan, Jeff Bigham 2021
Awarded for "bringing together global leaders in computer science, psychology, neuroscience, education and the educational technology (EdTech) industry so digital technologies can be better tailored to children."

Special Recognitions for Outstanding Reviews
Computer-Supported Cooperative Work and Social Computing (CSCW) 2021

EECS Undergraduate Research Honor
Electrical Engineering and Computer Science, UC Berkeley 2020
Award to "very talented undergraduate students interested in undergraduate research. Honors students pursue an academic concentration outside of the department, engage in research, receive a special faculty advisor, and are invited to special events with faculty and EECS Honors alumni."

Highest Distinction, School of Letter and Science, UC Berkeley 2020
General Scholarship at Graduation award for undergraduate students with a GPA of 3.986 or above. Equivalent to Summa Cum Laude.

Dean's List, School of Letter and Science, UC Berkeley 2018, 2019, 2020
Awarded to undergraduate students with a semester GPA in the top 10% of undergraduates in the School of Letter and Science

Grant Writing & Preparation	[G8] AI Ethics and Social Impact: Thinking about impact with the Generative AI Playbook 2024 Commitment Grant Presentation for *Bill & Melinda Gates Foundation* **Project Presenter**; *Co-presented with Jessie J. Smith, Jon Ball, Nicole DeCario, Jesse Dodge, and Margaret Mitchell*

[G7] Engaging End-users in Surfacing Harmful Algorithmic Behaviors in Large-scale AI 2024
Awarded ($60,000); *Notre Dame-IBM Technology Ethics Lab*
PI; *Co-written with Motahhare Eslami, Ken Holstein, and Jason Hong; Collaborating with Toby J. Li (Norte Dame University)*

[G6] Searching for Less Discriminatory Algorithms: Mechanisms for Navigating Legal Requirements 2024
Submitted; *National Science Foundation; Planning Grant for Responsible Design, Development, and Deployment of Technologies (ReDDDoT)*
Student contributor; *Co-written with Emily Black, Logan Koepke, Mingwei Hsu, Miranda Bogen*

[G5] Generative AI Meets Responsible AI: Supporting User-Driven Algorithm Auditing of Generative AI Systems 2024
Awarded ($60,000); *Google Research Scholar Program*
Student contributor; *Co-written with Motahhare Eslami, Ken Holstein.*

[G4] Bridging Between Regulation and On-the-Ground Practice in Responsible AI
Awarded ($45,000); *MSR AI & Society Challenge* 2023
PI; *Co-written with Ken Holstein, Motahhare Eslami, and Jason Hong.*

[G3] Generative AI Meets Responsible AI: Supporting User-Driven Algorithm Auditing of Generative AI Systems 2023
Not recommended for funding; *AWS Amazon Research Awards*
Student contributor; *Co-written with Motahhare Eslami, Ken Holstein, Jason Hong.*

[G2] Scaffolding Responsible AI Practice at the Earliest Stages of Ideation, Problem Formulation and Project Selection   2023
Awarded ($350,193); *PwC*
Student contributor; *Co-written with Ken Holstein, Motahhare Eslami, Jodi Forlizzi, Hoda Heidari, Christian Kaestner, Haiyi Zhu, and John Zimmerman*

[G1] Public AI Engagement through Public Installation and Display   2022
Not recommended for funding; *Remaking Learning Moonshot Grant Proposal*
PI; *Co-written with Ken Holstein, Motahhare Eslami*

Conference Publications *Stringently Peer-reviewed*	[P10] **Wesley H. Deng**, Solon Barocas*, Jennifer Wortman Vaughan*. (2024). Supporting Industry Computing Researchers in Assessing, Articulating, and Addressing the Potential Negative Societal Impact of Their Work. *Under Revision*

[P9] Jordan Taylor, **Wesley H. Deng**, Ken Holstein, Sarah Fox, Haiyi Zhu. (2024). Unmaking Marginality. *Under Revision*

[P8] Sara Kingsley*, Jiayin Zhi*, **Wesley H. Deng**, Jaimie Lee, Sizhe Zhang, Motahhare Eslami*, Kenneth Holstein*, Joson I. Hong*, Tianshi Li*, Hong Shen*. (2024). Investigating What Factors Influence Users' Detection of Harmful Algorithmic Bias and Discrimination. *Under Revision*

[P7] **Wesley H. Deng**, Nur Yildirim, Monica Chang, Motahhare Eslami, Ken Holstein, Michael Madaio. (2023). Investigating Practices and Opportunities for Cross-functional Collaboration around AI Fairness in Industry Practice. *In Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency (FAccT '23)*

[P6] **Wesley H. Deng**, Boyuan Bill Guo, Alicia DeVrio, Hong Shen, Motahhare Eslami*, Ken Holstein*. (2023). Understanding Practices, Challenges, and Opportunities for User-Engaged Algorithm Auditing in Industry Practice. *in Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (CHI'23).*

[P5] **Wesley H. Deng**, Manish Nagireddy, Michelle Seng Ah Lee, Jatinder Singh, Zhiwei Steven Wu, Kenneth Holstein, Haiyi Zhu. (2022). Exploring How Machine Learning Practitioners (Try To) Use Fairness Toolkits. *In Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22)*

[P4] Hong Shen, Leijie Wang, **Wesley H. Deng**, Ciell, Ronald Velgersdijk, Haiyi Zhu. (2022). The Model Card Authoring Toolkit: Towards Community-centered, Deliberation-driven AI Design. *In Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22)*

[P3] Dan Liebling, Katherine Heller, Samantha Roberston, **Wesley H. Deng**. (2022). Opportunities for Human-centered Evaluation of Machine Translation Systems *In Proceedings of the 2022 North American Chapter of the Association for Computational Linguistics (NAACL '22)*

[P2] Hong Shen, **Wesley H. Deng**, Aditi Chattopadhyay, Steven Wu, Xu Wang, Haiyi Zhu. (2021). Value Cards: An Educational Toolkit for Teaching Social Impacts of Machine Learning through Deliberation. *In Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT '21)*

[P1] Jon Gillick, **Wesley H. Deng**, Kimiko Ryokai, David Bamman. Robust Laughter Detection in Noisy Environments. (2021) *In Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP '21)*

Workshop & Tutorial Organized *Stringently*	[WT04] Hoda Heidari, **Wesley H. Deng***, Michael A. Feffer*, Anusha Sinha*; Sup-

porting NIST's Development of Guidelines on Red-teaming for Generative AI. Workshop at CMU (2024)

[WT03] Ziang Xiao, **Wesley H. Deng**, Michelle Lam, Motahhare Eslami, Juho Kim, Mina Lee, Q. Vera Liao. (2024) Human Centered Evaluation and Auditing of Large Language Models. *Workshop at the ACM CHI Conference on Human Factors in Computing Systems (CHI'24)*

[WT02] **Wesley H. Deng**, Michelle Lam, Alex Cabrera, Danaë Metaxa, Motahhare Eslami, Ken Holstein. (2023). Supporting User Engagement in Testing, Auditing, and Contesting AI. *Workshop at the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'23). ACM.*

[WT01] **Wesley H. Deng**, Shivani Kapania, Ken Holstein, Motahhare Eslami. *Panelist:* Lauren Wilcox, Su Lin Blodgett, Danaë Metaxa, Nicholas Diakopoulos, Karrie Karahalios, Shubhanshu Mishra, Christo Wilson (2023). User Engagement in Algorithm Testing and Auditing: Exploring Opportunities and Tensions between Practitioners and End Users. *Critiquing and Rethinking Fairness, Accountability, and Transparency (CRAFT) session at the 2023 ACM Conference on Fairness, Accountability, and Transparency (FAccT '23)*

Workshop Publications & White Paper

[WP7] **Wesley H. Deng***, Michael A. Feffer*, Anusha Sinha*, Hoda Heidari (2024). An Executive Summary of Comments Submitted to NIST in Response to RFI 88368. *White paper for National Institute of Standards and Technology*

[WP6] **Wesley H. Deng**, Jason Hong (2024). Organizing Crowd Audits to Detect Bias in Machine Learning. *NSF Fairness in AI PI Meeting; 2024*

[WP5] **Wesley H. Deng**, Motahhare Eslami, Kenneth Holstein. (2023) Towards "Anytime, Anywhere" Community Learning and Engagement around the Design of Public Sector AI. *Workshop on AI Literacy: Finding Common Threads between Education, Design, Policy, and Explainability; CHI 2023*

[WP4] **Wesley H. Deng**, Nikita Mehandru, Samantha Roberston, Niloufar Salehi. (2022) Beyond General Purpose Machine Translation: The Need for Context-specific Empirical Research to Design for Appropriate User Trust. *Workshop on Trust and Reliance in AI-Human Teams; CHI 2022*

[WP3] **Wesley H. Deng**, Manish Narigeddy, Zhiwei Steven Wu, Kenneth Holstein, Haiyi Zhu. (2021) Evaluating Fairness in Practice: Exploring How Machine Learning Practitioners Use Fairness Toolkits. *Human-Centered AI Workshop; NeurIPS 2021*

[WP2] Samantha Roberston, **Wesley H. Deng**, Timnit Gebru, Margaret Mitchell, Dan Liebling, Michal Lahav, Katherine Heller, Mark Diaz, Samy Bengio, Niloufar Salehi. (2021) Three Directions for the Design of Human-Centered Machine Translation. *1st HCI + NLP Workshop, NAACL 2021*

[WP1]Kimiko Ryokai, Julia Park, **Wesley H. Deng**. (2020) Personal laughter archives: reflection through visualization and interaction. *Adjunct Proceedings of the 2020 ACM International Conference on Ubiquitous Computing (UbiComp 2020)*

Research Experience

AllenNLP, Allen Institute for AI   Fall 2023 - now
Research Assistant (Research Intern offer deferred due to Visa constraint)
Research supervisor: Jesse Dodge & Nicole DeCario
Research Topics: Responsible AI, Generative AI, Impact Assessment

FATE, *Microsoft Research*   Summer 2023
Research Intern
Research supervisors: Jenn Wortman Vaughan & Solon Barocas
Research Topics: Responsible AI, Impact Assessment.

4A Lab, *Carnegie Mellon University*   Summer 2021 - now
Ph.D. Student
Research supervisors: Motahhare Eslami
Research Topics: Responsible AI ([P7], [P8]), Algorithm Auditing [P7]

CoALA Lab, *Carnegie Mellon University*   Fall 2020 - now
Pre-Doctoral Research Assistant & Ph.D. Student
Research supervisors: Ken Holstein
Research Topics: Responsible AI ([WP3], [P5], [P7], [P8]), Algorithm Auditing ([P7])

Social AI Group, *Carnegie Mellon University*   Fall 2020 - Fall 2021
Pre-Doctoral Research Assistant
Research supervisors: Haiyi Zhu and Steven Wu
Research Topics: Responsible AI ([P2], [P4], [P5]), ML Fairness ([WP3], [P5]) and Social Computing [P6]

To3 Group, *University of California, Berkeley*
& **Google Ethical AI**, *Google*   Fall 2019 - Fall 2020
Undergraduate Research Assistant
Research supervisors: Niloufar Salehi
Research Topics: Responsible AI for Machine Translation ([WP2], [WP4], [P3])

BioSENSE Lab, *University of California, Berkeley*   Fall 2018 - Fall 2020
Undergraduate Research Assistant
Research supervisors: Kimiko Ryokai and David Bamman
Research Topics: Design [WP1] and Ubiquitous computing ([WP1], [P1])

Invited Talk and Panelist	**Supporting Responsible AI in Real-world Organizational Contexts: Current Practices, Challenges, and Opportunities in Industry Settings**

Invited talk at Tencent, Shanghai   05/2024

Invited talk at Google, Shanghai   05/2024

Invited talk at TikTok, NYC   04/2024

Invited talk at Salesforce, (Remote)   04/2024

Invited (lightening) talk at TikTok, NYC   03/2024

Invited talk at Capital One, Data Science Team   07/2023

Invited talk at TU Delft, Faculty of Industrial Design Engineering   05/2023

Invited talk at TU Delft, Faculty of Electrical Engineering, Mathematics and Computer Science, Delft University of Technology   05/2023

Understanding Practices, Challenges, and Opportunities for User-Engaged Algorithm Auditing in Industry Practice

Invited talk at University of California, Berkeley, Algorithmic Fairness and Opacity (AFOG) Group   10/2022

Exploring How ML Practitioners (Try To) Use Fairness Toolkits

Invited talk at PwC AI Governance Group	03/2022
Invited talk at Google PAIR	08/2022
Invited talk at IBM AIF360 developer team monthly meeting	07/2022
Invited talk at Fairlearn developer team meeting	03/2021

Other talks and panels

Invited panelist, "Flavor of HCI"
hosted by Carnegie Mellon University, User Experience Association   11/2022

Invited speaker, "Applying for Ph.D. programs in Human-Computer Interaction"
hosted by UC Berkeley, Chinese Student Association   07/2022

Invited panelist, Graduate School Application Panel,
hosted by Carnegie Mellon University, REU Summer Program in HCII   06/2022

Invited presenter, Design Innovation Lecture Series,
hosted by UC Berkeley, Jacobs Institute for Design Innovation   08/2022

Invited panelist, EECS Research Honor program panel,
hosted by UC Berkeley, EECS Honor program   03/2021

Invited presenter, Designing Emergent Technology,
hosted by UC Berkeley, Jacobs Institute for Design Innovation   12/2019

Selected Press 12/2023, **World Privacy Forum**, Risky Analysis: Assessing and Improving AI Governance Tools. An international review of AI Governance Tools and suggestions for pathways forward

07/2023, **Center for Advancing Safety of Machine Intelligence**, AI ethics debate at Chicago conference, precursor to CASMI's next workshop.

06/2023, **Queer in AI**, 3 things that AI ethics toolkits get wrong.

12/2022, **WIRED**, ChatGPT, Galactica, and the Progress Trap: When large language models fall short, the consequences can be serious. Why is it so hard to acknowledge that?

11/2021, **CMU HCII**, HCII Researchers To Study Improving Algorithm, Computer Science Education as Part of CERES Network.

Academic Service **Program Committee**
FAccT, Since 2022
Empathy-centric Design at Scale Workshop, CHI 2022

Conference Reviewer
CHI, since 2021, with special recognition for outstanding reviews (2023)

CSCW, since 2021, with special recognition for outstanding reviews (2021, 2024)
FAccT, since 2021
AIES, since 2023
ICASSP 2021
TEI 2023

Community Service	**Organizer**: CMU HCII Ph.D. Student Social Hour	2021, 2022, 2023, 2024

Organizer: CMU HCII Ph.D. Student Social Hour   2021, 2022, 2023, 2024
Organize the bi-monthly social event to foster engagement and mutual supports among HCII Ph.D. students, visiting scholars, and post-doctors.

Organizer: CMU HCII Ph.D. & Faculty Off-campus Tea Hour   2023, 2024
Launch and organize semester-wise off-campus tea hours at a local coffee shop, fostering community and collaboration among HCII Ph.D. students and faculty members.

Organizer: CMU Ph.D. Student CHI Conference Practice Talk   2022, 2023, 2024
Coordinate the annually event for HCII Ph.D. students to practice their conference talk for the CHI conference on Human Factors in Computing Systems.

Organizer: CMU HCII Summer REU and Ph.D. Social Event   2023
Coordinate social event for the REU program, enabling undergraduates to connect with HCII faculty and Ph.D. students, and gain insights into HCI research and doctoral life.

Organizer: CMU Responsible AI Initiate Ph.D. Student Gathering   2022
Initiate and coordinate the inaugural CMU Ph.D. student gathering focused on Responsible AI research, promoting cross-campus communication and collaboration among students engaged in this field.

Organizer: CMU HCII Ph.D. Junior-Senior Coffee chat   2021
Coordinated the department-supported HCII Ph.D. student coffee chats to foster mutual support and mentorship between junior and senior HCII Ph.D. students.

Co-organizer: CMU HCII Department Welcoming Event   2024
Co-organize the HCII department welcoming party for all HCII Ph.D. students, Master students, staffs, and faculty members.

Co-organizer: CMU HCII Seminar Speaker Student Host   2021, 2022, 2023, 2024
Support the department to host HCII seminar speakers by organizing the student lunch.

Participant: CMU School of Computer Science Ph.D. Application Assistance for underrepresented applicants   2022, 2023
Support 3-5 underrepresented applicants each year to apply for CS Ph.D. program.

Participant: Graduate School Application Panel for Summer REU Program   2022
Attending panels for REU students and provide overview and help of PhD application.

Participants: CMU HCII Ph.D. Opening House Events   2021, 2022, 2023, 2024
Volunteer for welcoming accepted Ph.D. candidates through various activities.

Research Mentorship

Matheus Kunzler Maldaner, University of Florida, Research Assistant through Research Experiences for Undergraduates (REU)   Summer 2024 - Now

Claire Wang, University of California, Berkeley, Research Assistant through Research Experiences for Undergraduates (REU)   Summer 2024 - Now

Howard Han, CMU, Master Student Research Assistant
Now CMU HCII Ph.D.   Spring 2023 - Spring 2024

Xiaofeng Yan, CMU, Master Student Research Assistant
Now Columbia University CS Ph.D.   Fall 2022 - Spring 2023

Jieyu Zhou, CMU, Master Student Research Assistant

	Now Georgia Tech Interactive Computing Ph.D.	Spring 2022 - Spring 2023
	Shixian Xie, CMU, Master Student Research Assistant	
	Now CMU HCII Ph.D.	Summer 2022 - Spring 2023
	Leijie Wang, Tsing-hua University, Undergraduate HCI Research Assistant	
	Now UW CSE Ph.D.	Spring 2021 - Spring 2022
	Bill Guo, CMU, Undergraduate HCI Research Assistant	Summer 2021 - Fall 2022

Project Mentorship	**Bhavya Jha**, CMU, Master Student Research Assistant	Spring 2024 - Now
	Vicky Zhu, CMU, Undergraduate Independent Study	Spring 2024
	Carson Piehl, CMU, Undergraduate Independent Study	Spring 2024
	Yvvone Fang, CMU, Master Student Research Assistant	Spring 2023 - Summer 2023
	Anthony Pan, CMU, Undergraduate Design Project	Fall 2022
	Christy Zo, CMU, Undergraduate Design Project	Fall 2022
	Rebecca Jiang, CMU, Undergraduate HCI Independent Study	Summer 2022
	Vivek Nadig, Valley Christian High School, High School student	Summer 2022
	Andrew Sim, CMU, Master Student Independent Study	Spring 2022
	Harnoor Dhingra, CMU, Master Student Independent Study	Spring 2022
	Susan Huang, CMU, Undergraduate HCI Research Assistant	Fall 2021
	Alice Tran, CMU, Undergraduate HCI Research Assistant	Fall 2021

Teaching	User Centered Research and Evaluation, *05-710, CMU*	Graduate TA; 2023
	Data Science, *Data 100, UC Berkeley*	Undergraduate TA; 2020
	Probability Theory, *Statistics 134, UC Berkeley*	Group Tutor; 2019
	Data Structure, *CS 61B, UC Berkeley*	Lab Assistant; 2019
	Introduction of Computing, *CS 61A, UC Berkeley*	Lab Assistant; 2018
	Physics for Engineers, *Physics 7A, UC Berkeley*	One-on-one Tutor; 2018