

Advait Bhat

PhD Student, University of Washington

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Education

Present Sep 2024	University of Washington Allen School of CSE Ph.D. in Computer Science & Engineering Advisor: Prof. Tim Althoff	Seattle, WA
Jul 2021 Jul 2016	Indian Institute of Technology Bombay IDC School of Design Dual Degree in Design (B.Des + M.Des, Interaction Design)	Mumbai, India

Research Interests

My research lies at the intersection of HCI, NLP, psychology, and computational social science. I study psychological safety in human-AI interaction and build user modeling methods from large-scale behavioral data. More broadly, I am interested in how AI systems shape beliefs, communication and relationships.

Experience

Present Sep 2024	University of Washington Allen School of CSE [🌐] <i>PhD Student Advisor: Prof. Tim Althoff</i> Research on psychological safety in human-AI interaction and user modeling in the BData group .	Seattle, WA
Jul 2024 Jul 2022	Microsoft Research India [🌐] <i>Research Fellow Advisor: Dr. Vivek Seshadri</i> Designed methods to enable knowledge acquisition and skilling through data annotation for low-income data annotators in rural and semi-urban India.	Bangalore, India
2023 2021	Cornell Tech Social Technologies Lab [🌐] <i>Visiting Researcher Advisors: Prof. Mor Naaman, Prof. Maurice Jakesch</i> Examined if and how writing assistants powered by biased language models can influence the opinion formation process and opinions of writers.	Remote
Jul 2022 Aug 2021	Indian Institute of Technology Bombay Interaction Design for Indian Needs Lab [🌐] <i>Research Associate Advisor: Prof. Anirudha Joshi</i> Conducted user studies to understand mobile banking usage in low-literate and elderly users along with designing and testing a mobile banking application with interactive voice guidance.	Mumbai, India
Jul 2022 Nov 2021	Ooloi Labs [🌐] <i>Creative Technologist Mentors: Akshay Roongta, Abrar Burk</i> Designed and developed data collection technologies such as interactive voice response systems for reporting human rights violations in Delhi slums and chatbots for grassroots monitoring of water quality.	Remote
Jul 2019 May 2019	Microsoft India Development Center [🌐] <i>User Experience Intern</i> Designed an intelligent user interface for an enterprise product for identifying and mitigating ad fraud on Bing Ads.	Bangalore, India

Publications

- [J.1] **Biased AI Writing Assistants Shift Users' Attitudes on Societal Issues** [🌐]
Sterling Williams-Ceci, Maurice Jakesch, [Advait Bhat](#), Kowe Kadoma, Lior Zalmanson, Mor Naaman
Science Advances, 2026
- [C.4] **Reactive Writers: How Co-Writing with AI Changes How We Engage with Ideas** [🌐]
[Advait Bhat](#), Marianne Aubin Le Quéré, Mor Naaman, Maurice Jakesch
CHI'26

- [C.3] **Co-writing with Opinionated Language Models Affects Users' Views** [🔗]
 Maurice Jakesch, [Advait Bhat](#), Daniel Buschek, Lior Zalmanson, Mor Naaman
CHI'23 [🏆 Best Paper Honorable Mention Award @ CHI'23]
- [C.2] **Interacting with Next-Phrase Suggestions: How Suggestion Systems Aid and Influence the Cognitive Processes of Writing** [🔗]
[Advait Bhat](#), Saaket Agashe, Parth Oberoi, Niharika Mohile, Ravi Jangir, Anirudha Joshi
IUI'23 [🏆 Best Paper Honorable Mention Award @ IUI'23]
- [C.1] **Speaking in Terms of Money: Financial Knowledge Acquisition through Speech Data Generation** [🔗]
[Advait Bhat](#)*, Nidhi Kulkarni*, Aditya Yadavalli, Jivat Neet Kaur, Anurag Shukla, Monali Shelar, Safiya F Husain, Vivek Seshadri (* = Equal Contribution)
ACM COMPASS'24
- [W.1] **How do People Interact with Biased Text Prediction Models while Writing?** [🔗]
[Advait Bhat](#), Saaket Agashe, Anirudha Joshi
HCI+NLP Workshop @ EACL'21
- [P.1] **Designing Playful Activities to Promote Practice of Preposition Skills for Kids with ASD** [🔗]
[Advait Bhat](#)
ACM SIGACCESS Conference on Computers and Accessibility [ASSETS '20]

Select Research Projects

Examining the Influence of Opinionated Language Models during Writing 2022 – 2023
sTech Lab, Cornell Tech | Advisors: [Prof. Mor Naaman](#), [Prof. Maurice Jakesch](#)

- > Studied how opinionated language models influence what writers express and believe through a large-scale co-writing experiment with 1,506 participants.
- > Built a Reddit-like writing interface and assistant for controlled co-writing studies with opinionated language models.
- > Ran a mixed-method follow-up study with interaction log analysis and retrospective interviews to examine mechanisms of AI influence during writing.

Integrating Learning and Skilling with Data Annotation 2023
Microsoft Research India | Advisor: [Dr. Vivek Seshadri](#)

- > Developed a learn-and-earn framework that integrates financial literacy instruction with speech data generation on the Karya platform.
- > Designed a story-based Marathi curriculum for a low-income stone quarry worker community in Wagholi, near Pune.
- > Evaluated the two-week intervention with 55 participants, finding a 41.6% improvement in financial literacy alongside high-quality labeled speech data generation.

Studying Writer Interaction with Language Model-powered Writing Assistants 2020 – 2022
IIT Bombay | Advisor: [Prof. Anirudha Joshi](#)

- > Studied how writers interact with next-phrase suggestion systems and how those systems influence cognitive writing processes.
- > Designed and built a GPT-2-powered predictive text editor for think-aloud and retrospective-protocol writing studies.
- > Proposed a model of writer-suggestion interaction, including how suggestion systems reshape planning, attention, and writing flow.

Impact and Media Coverage

Gary Marcus' testimony at the US Senate [🌐] Work on the potential of AI writing assistants to shift opinions was featured in a US Senate Committee on the Judiciary hearing on Oversight of A.I.

Wall Street Journal [🌐] on 'Help! My Political Beliefs Were Altered by a Chatbot!'

PEN America Report [🌐] on 'Speech in the Machine: Generative AI's Implications for Free Expression'

MIT Technology Review [🌐] on 'A chatbot that asks questions could help you spot when it makes no sense'

Ars Technica [🌐] on 'AI writing assistants can cause biased thinking in their users'

CHI 2023 Editors' Choice on "Human-Centered AI" [🌐]

Human-Centered AI at IUI 2023 [🌐]

Talks

"Examining the Influence of Opinionated Language Models during Writing"

- > [Monsoon Course on HCI 2023](#) Jun 2023 (Mumbai, India)
- > [Roundtable ML invited talks](#) [📺] May 2023 (Remote)
- > [IUI 2023 Presentation](#) Mar 2023 (Sydney, Australia)
- > Microsoft Research / Turing India Aug 2022 (Bangalore, India)

"Designing Playful Activities for Children with Autism Spectrum Disorder"

- > [ASSETS 2020 Presentation](#) Apr 2020 (Remote)
- > [ACM SIGCHI Mumbai Chapter](#) May 2020 (Remote)

Awards and Achievements

Best Paper Honorable Mention Award at CHI'23 Received an honorable mention best paper recognition for "Co-writing with Opinionated Language Models Affects Users' Views."

Best Paper Honorable Mention Award at IUI'23 Received an honorable mention best paper recognition for "Interacting with Next-Phrase Suggestions: How Suggestion Systems Aid and Influence the Cognitive Processes of Writing."

Gary Marsden Travel Award [🌐] For attending IUI'23 held in Sydney, Australia.

Academic Service

Reviewer IndiaHCI '23, CHI LBW '22

Volunteer INTERACT '17, IndiaHCI '16, IndiaHCI '18

Select Design and Software Projects

Data collection tools for on-field reporting. Nov'21 - Jul'22

- > Used participatory design methods to design an interactive voice response system for low-literate women to report human rights violations in Delhi slums and a WhatsApp-based chatbot for water quality monitoring for on-ground volunteers.
- > Developed the IVR system using the [Exotel API](#) and a WhatsApp-based chatbot using [Glific](#).
- > Implemented APIs and database integrations for the IVR system and WhatsApp chatbot.

Banking application with interactive voice guidance for low-literate and elderly users. Aug'21 - Jul'22

- > Designed an end-to-end banking application interface, user experience and interactions.
- > Employed methods such as card sorting and heuristic evaluation for application design, evaluation and iteration.
- > Used task-based usability testing for evaluating the design with low-literate and elderly users.

Bing Fraud Linkage Analyser May'19 - Jul'19

- > Worked with a team of developers and researchers to build a 'Search Fraud detection interface' for the Bing search engine.
- > Designed a novel intelligent interface that leverages clustering to identify potentially fraudulent ads in the search engine and help human reviewers catch fraudsters faster and more accurately.

Teaching and Leadership Roles

Post Graduate Program in User Experience Design at IIT Bombay *Teaching Assistant*

Nov'21 - May'22

- > Taught and mentored a cohort of industry professionals in UX design and research methods.

IIT Bombay ACM SIGCHI Student Chapter *Vice-Chair*

Dec'20 - Jul'21

- > Organized monthly talks, workshops and community events for the HCI community at IIT Bombay.

References

- > Prof. Tim Althoff *Professor, University of Washington* [[🔗](#)]
- > Prof. Anirudha Joshi *Professor, IIT Bombay* [[🔗](#)]
- > Prof. Mor Naaman *Professor, Cornell Tech* [[🔗](#)]
- > Dr. Vivek Seshadri *Principal Researcher, Microsoft Research* [[🔗](#)]
- > Prof. Maurice Jakesch *Cornell Tech* [[🔗](#)]