

Ashish Sharma

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University of Washington

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🌐 <https://ash-shar.github.io>
🎓 Google Scholar

Education

University of Washington, Seattle, WA, USA

PhD in Computer Science

Sep 2019 – Aug 2024

🎓 **JP Morgan Chase AI Research PhD Fellow**

Indian Institute of Technology, Kharagpur, India

Dual Degree in Computer Science (Bachelor and Master of Technology)

Jul 2013 – Jun 2018

🏆 **Student-Par Excellence Award**

Research Experience

Microsoft, Office of Applied Research, Redmond, WA, USA

Senior Applied Scientist

Sep 2024 – Present

University of Washington, Seattle, WA, USA

Research Assistant

Sep 2019 – Aug 2024

Advisor: [Tim Althoff](#)

Thesis Committee: [Tim Althoff](#), [Noah Smith](#), [Ranjay Krishna](#), [Alexis Hiniker](#), [Adam Miner](#)

Microsoft Research, Redmond, WA, USA

Research Intern

Jun 2022 – Sep 2022

Advisors: [Sudha Rao](#), [Bill Dolan](#), [Chris Brockett](#), [Nebojsa Jojic](#)

Microsoft Research, Bengaluru, KA, India

Research Fellow

Jul 2018 – Aug 2019

Advisor: [Monojit Choudhury](#)

University of Illinois at Urbana-Champaign, Urbana, IL, USA

Research Intern

May 2017 – Jul 2017

Advisor: [Hari Sundaram](#)

Adobe Systems, Bengaluru, KA, India

Research Intern

May 2016 – Jul 2016

Advisor: [Sunav Choudhary](#)

Representative Publications

Cognitive Reframing of Negative Thoughts through Human-Language Model Interaction

Ashish Sharma, [Kevin Rushton](#), [Inna Lin](#), [David Wadden](#), [Khendra Lucas](#), [Adam Miner](#), [Theresa Nguyen](#), and [Tim Althoff](#)

ACL 2023 [[pdf](#)] [[project page](#)] [[code](#)]

🏆 **Outstanding Paper Award**

Human-AI Collaboration Enables More Empathic Conversations in Text-based Peer-to-Peer Mental Health Support

Ashish Sharma, [Inna Lin](#), [Adam Miner](#), [David Atkins](#), and [Tim Althoff](#)

Nature Machine Intelligence 2023 [[pdf](#)] [[video](#)] [[project page](#)]

Towards Facilitating Empathic Conversations in Online Mental Health Support: A Reinforcement Learning Approach

Ashish Sharma, [Inna Lin](#), [Adam Miner](#), [David Atkins](#), and [Tim Althoff](#)

The Web Conference (WWW) 2021 [[pdf](#)] [[talk](#)] [[video](#)] [[project page](#)]

Also presented at IJCAI 2022, *Sister Best Paper Conference Track*

🏆 **Best Paper Award**

A Computational Approach to Understanding Empathy Expressed in Text-Based Mental Health Support

Ashish Sharma, Adam Miner, David Atkins, and Tim Althoff

EMNLP 2020 [pdf] [talk] [project page]

Engagement Patterns of Peer-to-Peer Interactions on Mental Health Platforms

Ashish Sharma, Monojit Choudhury, Tim Althoff, and Amit Sharma

ICWSM 2020 [pdf] [talk]

CommBox: Real-Time Cricket Shot Identification and Commentary Generation using Sensors

Ashish Sharma, Jatin Arora, Pritam Khan, Sidhartha Satapathy, Sumit Agarwal, Satadal Sengupta, Sankarshan Mridha, and Niloy Ganguly

COMSNETS 2017 [pdf] [video]

🏆 **Best Academic Demo Award**

Other Publications

A Computational Framework for Behavioral Assessment of LLM Therapists

Ashish Sharma*, Yu Ying Chiu*, Inna Lin, and Tim Althoff

arxiv 2024 [pdf]

Correcting Misinformation on Social media with a Large Language Model

Xinyi Zhou, **Ashish Sharma**, Amy Zhang, and Tim Althoff

arxiv 2024 [pdf]

Rethinking Technology Innovation for Mental Health: Framework for Multi-Sectoral Collaboration

Jina Suh, Sachin R Pendse, Robert Lewis, Esther Howe, Koustuv Saha, Ebele Okoli, Judith Amores, Gonzalo Ramos, Jenny Shen, Judith Borghouts, **Ashish Sharma**, Paola Pedrelli, Liz Friedman, Charmain Jackman, Yusra Benhalim, Desmond C Ong, Sameer Segal, Tim Althoff, and Mary Czerwinski

Nature Mental Health 2024 [pdf]

IMBUE: Improving Interpersonal Effectiveness through Simulation and Just-in-time Feedback with Human-Language Model Interaction

Inna Lin, **Ashish Sharma**, Christopher Rytting, Adam Miner, Jina Suh, and Tim Althoff

arxiv 2024 [pdf]

Facilitating Self-Guided Mental Health Interventions Through Human-Language Model Interaction: A Case Study of Cognitive Restructuring

Ashish Sharma, Kevin Rushton, Inna Lin, Theresa Nguyen, and Tim Althoff

CHI 2024 [pdf]

Investigating Agency of LLMs in Human-AI Collaboration Tasks

Ashish Sharma, Sudha Rao, Chris Brockett, Akanksha Malhotra, Nebojsa Jojic, and Bill Dolan

EACL 2024 [pdf]

Gendered Mental Health Stigma in Masked Language Models

Inna Lin, Lucille Njoo, Anjalie Field, **Ashish Sharma**, Katharina Reinecke, Tim Althoff, and Yulia Tsvetkov

EMNLP 2022 [pdf]

A Linguistic Annotation Framework to Study Interactions in Multilingual Healthcare Conversational Forums

Ishani Mondal, Kalika Bali, Mohit Jain, Monojit Choudhury, **Ashish Sharma**, Evans Gitau, Jacki O'Neill, Kagonya Awori, and Sarah Gitau

LAW Workshop, EMNLP 2021 [pdf]

Going Beyond Content Richness: Verified Information Aware Summarization of Crisis-Related Microblogs

Ashish Sharma, Koustav Rudra, and Niloy Ganguly

CIKM 2019 [pdf]

Insights from the Long-Tail: Learning Latent Representations of Online User Behavior in Presence of Skew & Sparsity

Adit Krishnan, **Ashish Sharma**, and Hari Sundaram

CIKM 2018 [pdf] [code]

An Adversarial Approach to Improve Long-Tail Performance in Neural Collaborative Filtering [Short Paper]

Adit Krishnan, **Ashish Sharma**, Aravind Sankar, and Hari Sundaram

CIKM 2018 [pdf] [code]

Identifying and Analyzing Different Aspects of English-Hindi Code-Switching in Twitter

Koustav Rudra, **Ashish Sharma**, Kalika Bali, Monojit Choudhury, and Niloy Ganguly

TALLIP 2019 [pdf]

Classifying and Summarizing Information from Microblogs during Epidemics

Koustav Rudra, **Ashish Sharma**, Niloy Ganguly, and Muhammad Imran

Information Systems Frontiers 2018 [pdf]

Characterizing and Countering Communal Microblogs during Disaster Events

Koustav Rudra, **Ashish Sharma**, Niloy Ganguly, and Saptarshi Ghosh

Transactions on Computational Social Systems 2018 [pdf]

Classifying Information from Microblogs during Epidemics

Koustav Rudra, **Ashish Sharma**, Niloy Ganguly, and Muhammad Imran

Digital Health 2017 [pdf]

I May Talk in English but Gaali Toh Hindi Mein Hi Denge: A Study of English-Hindi Code-Switching and Swearing Pattern on Social Networks

Prabhat Agarwal, **Ashish Sharma**, Jeenu Grover, Mayank Sikka, Koustav Rudra, and Monojit Choudhury

COMSNETS 2017 [pdf]

Characterizing Communal Microblogs During Disaster Events [Short Paper]

Koustav Rudra, **Ashish Sharma**, Niloy Ganguly, and Saptarshi Ghosh

ASONAM 2016 [pdf]

Achievements and Awards

Outstanding Paper Award at ACL 2023	2023
JP Morgan Chase AI Research PhD Fellowship (<i>one of the 13 fellows across the U.S. and U.K.</i>)	2023
Best Paper Award at WWW 2021	2021
Student Par-Excellence Award by Computer Science Department, IIT Kharagpur	2019
SIGIR Student Travel Grant for attending CIKM 2019	2019
Best Academic Demo Award at COMSNETS 2017	2017
S.N. Bose Scholarship (<i>one of the 50 scholars from India</i>)	2017
Goralal Syngal Memorial Scholarship for academic excellence during 2015-2016	2016
Student Travel Grant for attending COMSNETS 2017	2017

Invited Talks

Harvard Business School <i>Human-AI Collaboration to Support Mental Health and Well-Being</i>	Mar 27, 2024
Jimini Health <i>Human-AI Collaboration to Support Mental Health and Well-Being</i>	Mar 26, 2024

Microsoft <i>Human-AI Collaboration to Support Real-World Tasks</i>	Mar 11, 2024
Mental Health America Conference <i>Cognitive Reframing of Negative Thoughts through Human-Language Model Interaction</i>	Jun 8, 2023
Headspace Conversational AI Journal Club <i>Human-AI Collaboration Enables Empathic Conversations in Mental Health Support</i>	May 25, 2022
Issaquah High School Artificial Intelligence Club <i>Human-AI Collaboration to Encourage Empathic Conversations in Mental Health Support</i>	Nov 22, 2021
Research Running on Cloud Compute and Emerging Technologies, 2021 <i>Leveraging Cloud Compute for Improving Empathy in Mental Health Support</i>	Aug 10, 2021
Crime Lab, University of Chicago <i>Towards Facilitating Empathic Conversations in Online Mental Health Support</i>	Feb 26, 2021
University of Connecticut <i>NLP for Mental Health</i>	Mar 2, 2020

Media Coverage

Allen School News on <i>Can AI take a joke? Allen School researchers [...]</i> 	Aug 2023
Allen School News on <i>Model researchers: Allen School's Ashish Sharma [...]</i> 	Aug 2023
Scientific American on <i>AI Chatbots Could Help Provide Therapy, but Caution Is Needed</i> 	Jun 2023
Dr. Tracey Marks' Youtube Channel on <i>7 questions to ask to check [...]</i> (Video) 	May 2023
Right as Rain by UW Medicine on <i>Can AI teach you how to communicate [...]</i> ? 	Apr 2023
The Washington Post on <i>We keep trying to make AI therapists. It's not working</i> 	Feb 2023
Infobae on <i>Cómo la inteligencia artificial puede ayudar a tener empatía [...]</i> 	Feb 2023
NPR on <i>Can AI help increase expression of empathy?</i> 	Feb 2023
Bioengineer.org on <i>How AI can help people be more empathetic [...]</i> 	Feb 2023
MedicalXpress on <i>How AI can help people be more empathetic [...]</i> 	Feb 2023
OPB on <i>UW study looks at how AI can help people have more empathetic conversations [...]</i> 	Feb 2023
UW News on <i>How AI can help people be more empathetic [...]</i> 	Jan 2023
Allen School News on <i>With HAILEY, researchers demonstrate how AI can lend [...]</i> 	Jan 2023
Microsoft Enable on <i>University of Washington Empathy Project (Video)</i> 	Jan 2023
Science 2.0 on <i>TalkLife And AI Can Help People Be More Empathetic About Mental Health</i> 	Jan 2023
Deutschlandfunk on <i>Automatische Empathie-Korrektur</i> 	Jan 2023
Psychology Today on <i>Can Human-AI Collaboration Enhance Empathy?</i> 	Nov 2022
Microsoft Accessibility Blog on <i>Human-AI Collaboration to Encourage [...]</i> 	Sep 2022
Allen School News on <i>Allen School's Tim Althoff, Ashish Sharma and Inna Lin win [...]</i> 	Jun 2021
Wall Street Journal on <i>Can Artificial Intelligence Replace Human Therapists?</i> 	Mar 2021
Stanford Human-Centered Artificial Intelligence on <i>Augmenting Psychotherapy with AI</i> 	Jan 2021

Teaching Experience

Head TA for <i>CSE547, Machine Learning for Big Data, University of Washington</i>	<i>Spring 2021</i>
Head TA for <i>CSE547, Machine Learning for Big Data, University of Washington</i>	<i>Spring 2020</i>
TA for <i>CS29003, Algorithms Laboratory, Indian Institute of Technology, Kharagpur</i>	<i>Spring 2018</i>
TA for <i>CS31003, Compilers, Indian Institute of Technology, Kharagpur</i>	<i>Fall 2017</i>

Student Mentoring

Kelly Chiu, <i>MS student at UW</i>	<i>May 2023 – Present</i>
Ethan Hsu, <i>MS student at Penn State University; now a Ph.D. student at UT Austin</i>	<i>Aug 2021 – Feb 2022</i>
Inna Lin, <i>MS student at Cornell University; now a Ph.D. student at UW</i>	<i>Jun 2020 – Jun 2021</i>

Service

Workshop Co-organizer	Human-Centered Large Language Modeling Workshop at ACL 2024
PC/Reviewer	Nature Mental Health 2024, CHI 2025, ACL 2024, CHI 2024, ACL 2023, ICWSM 2023, CHI 2023, ACL 2022, ARR 2022, EMNLP 2022, NAACL 2022, WWW 2022, ICWSM 2022, CHI 2022, KDD 2022, W-NUT 2022, ACL 2021, EMNLP 2021, WWW 2021, ICWSM 2021, MAISoN 2021, W-NUT 2021, ACL 2020, EMNLP 2020, TCSS 2020
Sub-Reviewer	NAACL 2019, PAKDD 2019
Volunteer	PLO 2019, COSMNETS 2017

Relevant Coursework

AI	Speech and Natural Language Processing, Machine Learning, Deep Learning, Artificial Intelligence, Interactive Learning
Data Mining	Information Retrieval, Scalable Data Mining, Social Computing, Economic and Financial Network Analysis
Systems	Distributed Systems, Database Management Systems, Cloud Computing
Miscellaneous	Computational Ethics in NLP, Big and Small Data for Health, Smartphone Computing and Applications, Image Processing, Probability and Statistics, Operations Research