ANKU RANI

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EDUCATION

Massachusetts Institute of Technology, Cambridge, USA — September 2024 - Present
PhD in AI (GPA: 4.9/5.0)
Courses: 6.S975 Generative AI with Stochastic Differential Equations,
6.8300 Advances in Computer Vision, 6.8610 Quantitative NLP, MAS.S61 AI Visions,
MAS. S60 How to AI Almost Anything, MAS.630 Affective Computing.
Advisors: Dr. Paul Pu Liang, Dr. Pattie Maes

Plaksha University, Mohali, India — 2020 — 2021
Post Graduate Program, Artificial Intelligence
Advisor: Dr. Monojit Choudhury, Microsoft Research

Shivaji University, Maharashtra, India — 2015 — 2019
Bachelor of Technology, Electronics and Tele Communications
Minor in Data and Business Analytics

Work Experience

IBM Research — Cambridge, USA
Research Scientist Intern → Visiting Student — June 2026 — Present
Training LLMs for quantum circuit synthesis; Multimodal LLMs for character based interaction

Massachusetts Institute of Technology — Cambridge, USA
Graduate Research Assistant — September 2024 — Present
Culturally faithful video generation, evaluation, and deployment

Adobe Research — Bengaluru, India
PhD Research Intern — June 2024 — August 2024
Chart reasoning & understanding in multimodal LLMs

NUS, Singapore — Remote
Research Assistant (Part-time) — September 2023 — September 2024
COVID-19 vaccine discourse; cross-cultural mental health self-disclosure on Twitter

AI Institute, University of South Carolina — Columbia, USA
Research Affiliate → Research Specialist — December 2022 — June 2024
Explainable fact verification; deception detection; AI-generated text detection in Hindi

Shaip AI DATA LLP — Ahmedabad, India
Research Scientist → Consultant — November 2022 — September 2023
Long-context modeling for clinical text

Cactus Labs, Cactus Communications Pvt Ltd — Mumbai, India
Software Engineer (NLP) — May 2022 — September 2022
Automated consistency checking for scientific manuscripts

Verisk Analytics — Gurgaon, India
Data Scientist I — September 2021 — April 2022
Text classification and question answering for insurance underwriting

Apptio, An IBM Company — Bengaluru, India
Product & Engineering Intern — April 2021 — June 2021
Cloud deployment tooling; AWS resource-usage forecasting

PixiuAI LLP — Bengaluru, India
Data Scientist Trainee (Founding Team) — June 2020 — November 2020
Financial news classification and recommendation

Civilsdaily — New Delhi, India
Data Analyst — January 2019 — May 2020
NLP for an ed-tech exam-preparation platform

NITI Aayog, Government of India — Singrauli, Madhya Pradesh
District Collector Intern — June 2018 — August 2018
District-level health and education monitoring

SELECTED PUBLICATIONS

C = Conference, J = Journal, P = Preprint/Submitted, W = Workshop — Google Scholar Link

[P.3] Durably Reducing Belief in Women's Health Misinformation Through Culturally Adaptive AI Videos
A Rani, K Jaidka, S Sharma, P Mahajan, M Wadhwa, A Lippman, P Maes, P Liang

Under Review CHI 2027 [Paper]

[C.9] CultureScore: Evaluating Cultural Faithfulness in Video Generation Models
A Rani, W Dai, S Nayak, P Maes, M Kalayeh, PP Liang
EMNLP 2026 [Paper]

[C.8] Dialogues with AI Reduce Beliefs in Misinformation but Build No Lasting Discernment Skills
A Rani, V Danry, PP Liang, A Lippman, P Maes
Best Paper Honorable Mention Award [Paper]

[J.1] **Collective Reactions to the Vaccine Rollout: Geolocating Emotional Shifts on Social Media**
K Jaidka, Y Wu, **A Rani**, O Kuru, R Jamalova, G Sherman, S C Guntuku
Accepted at Jama Network Open [Paper]

[C.7] **RADAR: A Reasoning-Guided Attribution Framework for Explainable Visual Data Analysis**
A Rani, A Garimella, A Saxena, B Srinivasan, PP Liang
EACL Findings 2026 [Paper]

[C.6] **SEPSIS: I Can Catch Your Lies – A New Paradigm for Deception Detection**
A Rani, D Dalal, S Gautam, P Gupta, V Jain, A Chadha, A Sheth, A Das
ACL SRW 2025 [Paper]

[C.5] **Can dialogues with AI systems help humans better discern visual misinformation?**
A Rani, V Danry, A Lippman, P Maes
IC2S2'25 [Paper]

[C.4] **Counter Turing Test (CT^2): Investigating AI-Generated Text Detection for Hindi - Ranking LLMs based on Hindi AI Detectability Index (ADI_{hi})**
I Kavathekar, **A Rani**, A Chamoli, P Kumaraguru, A Sheth, A Das
EMNLP Findings 2024 [Paper]

[C.3] **FACTIFY-5WQA: 5W Aspect-based Fact Verification through Question Answering**
A Rani, S.M Tonmoy, D Dalal, S Gautam, M Chakraborty, A Chadha, A Sheth, A Das
ACL 2023 Main Conference [Talk] [Poster] [Slide] [Paper]

[C.2] **FACTIFY3M: A Benchmark for Multimodal Fact Verification with Explainability through 5W Question-Answering**
M Chakraborty, K Pahwa, **A Rani**, S Chatterjee, D Dalal, H Dave, R Garimella, P Gurumurthy, A Mahor, S Mukherjee, A Pakala, I Paul, J Reddy, A Sarkar, K Sensharma, A Chadha, A Sheth, A Das
EMNLP 2023 Main Conference [Paper]

[C.1] **Use of Formal Ethical Reviews in NLP Literature: Historical Trends & Current Practices**
S Santy, **A Rani**, M Choudhury
ACL IJCNLP FINDINGS 2021 [Talk] [Poster] [Slide] [Paper]

[P.2] **A Comprehensive Survey of Hallucination Mitigation Techniques in Large Language Models**
SM Tonmoy, SM Zaman, V Jain, **A Rani**, V Rawte, A Chadha, A Das
Under Review ACM Computing Surveys [Paper]

[P.1] **Visual Hallucination: Definition, Quantification and Prescriptive Remediations**
A Rani, V Rawte, H Sharma, N Anand, K Rajbangshi, A Sheth, A Das
Arxiv 2024 [Paper]

[W.1] **Memotion 3: Dataset on Sentiment and Emotion Analysis of Codemixed Hindi-English Memes**
S Mishra, S Suryavardan, P Patwa, M Chakraborty, **A Rani**, A Chadha, A Reganti, A Das, A Sheth, M Chinnakotla, A Ekbal, & S Kumar
Defactify Workshop at AAAI 2023 [Paper]

[W.2] **Factify 2: A multimodal Fake News and Satire News Dataset**
S Suryavardan, S Mishra, P Patwa, M Chakraborty, **A Rani**, A Chadha, A Reganti, A Das, A Sheth, M Chinnakotla, A Ekbal, & S Kumar
Defactify Workshop at AAAI 2023 [Paper]

Teaching Experience

Plaksha University Mohali, India
Teaching Assistant April 2022 — July 2022

- Projects and Applications for the Data Science 2 course (Instructor: Alexander Fred-Ojala, UC Berkeley)

Professional Achievements and Awards

- Received an Honorable mention Best Paper Award at CHI, 2026.
- Awarded a Tata fellowship (130k USD) for my research on the Arogya Vani Project, 2025
- Received a travel grant to deliver a parallel talk in Sweden at IC2S2, 2025
- Received AAAI 2024 scholarship to present in the convention center, Vancouver at AAAI 2024, and D&I scholarship to present at the Westin Harbour, Toronto at ACL 2023

Academic Service

- Reviewer (CHI'27, CHI'26, COLM'26, ACL ARR 2026, ACL ARR 2025, IC2S2, NAACL'24, ACL'24, IC2S2'24), program committee member for ACL'23 & ACL'24 clinical NLP workshop
- Co-organizer of the Defactify workshop (multimodal fact-checking and hate speech detection) at AAAI' 23 & AAAI'24
- Volunteer at AAAI'24, ACL'23, EACL'23, AAAI'23, ACL'21, EMNLP'21, Emoji'21 ICWSM
- Mentored 10+ women in Plaksha TLP'22, boosting their average salary offers by 20%

Invited Talks

KU Leuven
Culturally Adaptive Multimodal Models: From Training and Evaluation to Deployment in Communities. October 2026

Boston AI, ML and Computer Vision Meetup, Microsoft Research
Beyond the Black Box: Vision Language Models that Explain & Empower February 2026

EmTech MIT 2025
Localization of Videos using Generative AI October 2025

The 11th International Conference on Computational Social Science (IC2S2), Sweden
Talk Title: Can dialogues with AI systems help humans better discern visual misinformation? July 2025

SAP Sapphire Madrid
Talk Title: Mind & Machine: Imagining the future of human creativity with AI May 2025