Rishiraj Adhikary

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[Google Scholar Link](#)

RESEARCH INTEREST

Ubiquitous/Pervasive Computing, Health Sensing and Intervention

EDUCATION

Ph.D. in Computer Science, CGPA: 8.76	August 2019 - January 2025
IIT Gandhinagar, Advisor: Prof. Nipun Batra	*Gandhinagar, India*
BTech in Electronics and Communication CGPA: 8.19	August 2011 – August 2015
Gauhati University	*Guwahati, India*

AWARDS AND FELLOWSHIPS

Commendation for Outstanding Research (PhD), IIT Gandhinagar — July 2025
- Recognized for excellence in doctoral research by IIT Gandhinagar during the convocation ceremony.

UbiComp Gaetano Borriello Outstanding Student Award (Top 3) — October 2023
- The award recognizes a PhD student making outstanding contributions to academia and society and in the field of Ubiquitous and Pervasive Computing

Participant in the 11th Heidelberg Laureate Forum — September 2024
- My work on health was covered by German popular science magazine *Spektrum der Wissenschaft*

Fulbright-Nehru Doctoral Research Fellowship 2022-2023 — November 2022

Prime Minister's Research Fellowship, India — May 2022

Best poster award in PhD Research Showcase — January 2024
IIT Gandhinagar

EXPERIENCE

Enercent Technologies (JioThings - Reliance)	August 2024 – Present
Research Data Scientist	*Bengaluru, India*
Carnegie Mellon University - SMASH Lab	August 2022 – May 2023
Fulbright-Nehru Visiting Researcher	*Pittsburg, USA*
IIT Gandhinagar	March 2019 – June 2019
Junior Research Fellow	*Gandhinagar, India*

PUBLICATIONS

1. **Rishiraj Adhikary**, Maite Sadeh, Nipun Batra, Mayank Goel
   JoulesEye: Energy Expenditure Estimation and Respiration Sensing From Thermal Imagery while Exercising
   ACM Transactions on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT '24)
   https://dl.acm.org/doi/abs/10.1145/3631422
   [Covered by Indian Express, CMU News, ZME Science, Knowridge, TechXplore and other news outlets](#)

2. **Rishiraj Adhikary**, Prerna Khanna, Tanmay Srivastava, Rohit Patil, Jacob Peplinski, Joe Breda, Nipun Batra, and Shwetak Patel
   SpiroMask: Measuring Lung Function Using Consumer-Grade Masks
   ACM Transactions on Computing for Healthcare (HEALTH '23)
   https://doi.org/10.1145/3570167
   [Covered by The Ahmedabad Mirror](#)

3. **Rishiraj Adhikary**, Aryan Varshney, Nipun Batra
   Towards Continuous Respiration Rate Detection While Walking
   * Ubicomp/ISWC Adjunct Proceedings 2022
   https://doi.org/10.1145/3570167

4. Karm Patel, **Rishiraj Adhikary**,Zeel Patel, Nipun Batra,and Sarath Guttikunda
   Samachar: News Media on Air Pollution in India
    ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS '22)
   https://doi.org/10.1145/3530190.3534812

5. **Rishiraj Adhikary**, Tanmay Srivastava, Prerna Khanna, Abas Asit Senapati, and Nipun Batra
   Naqaab: Towards health sensing and persuasion via masks
   * Ubicomp/ISWC Adjunct Proceedings 2020
   https://dl.acm.org/doi/abs/10.1145/3410530.3414403

6. **Rishiraj Adhikary**, and Nipun Batra
   Do we breathe the same air?
   * Ubicomp/ISWC Adjunct Proceedings 2020
   https://dl.acm.org/doi/10.1145/3410530.3414414

7. **Rishiraj Adhikary**, and Nipun Batra
   Computational Tools for Understanding Air Pollution
   * Ubicomp/ISWC Adjunct Proceedings 2020 (Doctoral Colloquium)
   https://dl.acm.org/doi/10.1145/3410530.3414327

8. **Rishiraj Adhikary**, Zeel patel, Tanmay Srivastava, Nipun Batra, Mayank Singh, Udit Bhatia, Sarath Guttikunda
   Vartalaap: What Drives AirQuality Discussions: Politics, Pollution or Pseudo-science
   * CSCW Proceedings 2021
   https://dl.acm.org/doi/10.1145/3449170

9. **Rishiraj Adhikary**, Soham Pachpande, Nipun Batra
   Lessons from large scale campus deployment
    The 3rd International SenSys+BuildSys Workshop on Data: Acquisition to Analysis (DATA '20)
   https://dl.acm.org/doi/10.1145/3419016.3431490

10. Rachna Pathak, Shalu Agrawal, **Rishiraj Adhikary**, Nipun Batra, and Karthik Ganesan
    Poster Abstract: Impact of COVID19 lockdown on household energy consumption on two Indian cities
    * SenSys '20
    https://dl.acm.org/doi/10.1145/3384419.3430453

11. Kukunuri Rithwik, **Rishiraj Adhikary**, Mahika Om Jaguste, Nipun Batra,and Ashish Tendulkar
    Exploring Hidden Markov Model
     Visualization for AI Explainability (IEEE VISxAI) 2021
    https://nipunbatra.github.io/hmm/

SERVICE AND INVITED TALKS

Technical Program Committee Member: IEEE EMBC (2025), IEEE COMSNETS (2024), ACM SenSys DATA workshop (2021),

Reviewer: ACM IMWUT (2022, 2024, 2025), ACM CHI (2024), ACM COMPASS (2022), Nature Scientific Data

Invited Talks: IEEE COMSNET (Bengaluru), Sarvajanik College of Engineering & Technology (Surat)

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