

Rishiraj Adhikary

rishiraj.inbox@gmail.com

RESEARCH INTEREST

Health sensing via ubiquitous technologies for scalable data and interventions

AI For Social Good

EXPERIENCE

Enercent Technologies (JioThings - Reliance)

Research Data Scientist

August 2024 – Present

Bengaluru, India

Carnegie Mellon University - SMASH Lab

Fulbright-Nehru Visiting Researcher

August 2022 – May 2023

Pittsburg, USA

IIT Gandhinagar

Junior Research Fellow

March 2019 – June 2019

Gandhinagar, India

EDUCATION

Ph.D. in Computer Science, CGPA: 8.76

IIT Gandhinagar

August 2019 - January 2025

Gandhinagar, India

- Advisor: Prof. Nipun Batra

BTech in Electronics and Communication CGPA: 8.19

Gauhati University

August 2011 – August 2015

Guwahati, India

AWARDS AND FELLOWSHIPS

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

IIT Gandhinagar

January 2024

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
Nagaab: 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), ACM CHI (2024), ACM COMPASS (2022),

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

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