

# Rishiraj Adhikary

[rishiraj.inbox@gmail.com](mailto: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: 8.76**

*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**

January 2024

*IIT Gandhinagar*

## 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)

[rishiraj.inbox@gmail.com](mailto:rishiraj.inbox@gmail.com) | [linkedin.com/in/rishiraj-in/](https://linkedin.com/in/rishiraj-in/)