

Rishiraj Adhikary

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Education

Ph.D. in Computer Science (Prime Ministers' Research Fellow)

August 2019 - January 2025

Advisor: Prof. Nipun Batra
IIT Gandhinagar, Gujarat, India
CPI: 8.76

Fulbright Visiting Researcher

August 2022 - May 2023

Host Advisor: Prof. Mayank Goel
Carnegie Mellon University, Pittsburgh, PA, USA

BTech in Electronics and Communication

August 2011 - August 2015

Gauhati University, Assam, India
CGPA: 8.19

Awards and Fellowships

1. Selected To Participate In The 11th Heidelberg Laureate Forum
2. UbiComp Gaetano Borriello Outstanding Student Award (Top 3)
3. Fulbright-Nehru Doctoral Research Fellowship 2022-2023
4. Prime Minister's Research Fellowship, India (May 2021 Cycle)
5. Best poster award in PhD Research Showcase at IIT Gandhinagar (2023).

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>
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>
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
Naaqab: 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

- December 2022, February 2024, May 2024 **Reviewer** Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (ACM IMWUT)
- January 2024 **Invited Talk** on “Exploring Health and Wellness through Respiratory Sensing” at the NetHealth Workshop held during IEEE COMSNET.
- December 2023 **Member** Technical committee member (TPC), for the IEEE COMSNETS NetHealth Workshop.
- October 2023 **Reviewer** Proceedings of the ACM on Computer Human Intereaction (ACM CHI)
- April 2022: **Reviewer** ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS 2022)
- October 2021: **Member** Technical committee member (TPC), for the 4th workshop on Data: Acquisition to Analysis.
- September 2021 and September 2020: **Volunteer** at the ACM International Joint Conference on Pervasive and Ubiquitous Computing and 2020 ACM International Symposium on Wearable Computers.
- April 2021: **Invited Talk** on “Mobile Computing In Health” during GUJCOST sponsored 3-day workshop on “IoT and Wearable Technology.” at Sarvajani College of Engineering Technology.
- March 2021: **Shadow Program Chair** at the ACM COMPASS 2021
- February 2019: **Volunteer** at the 14th Inter-Research-Institute Student Seminar in Computer Science and ACM India Annual Event at IIT Gandhinagar, Gujarat, India.