

# Rishiraj Adhikary

PH.D. CANDIDATE, IIT GANDHINAGAR

✉ rishiraj.a@iitgn.ac.in | 🏠 rishi-a.github.io | 📷 rishi-a | 🌐 rishiraj-in

## Education

---

### Fulbright Visiting Researcher

August 2022 - May 2023

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

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

August 2019 - to date

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

### BTech in Electronics and Communication

August 2011 - August 2015

Gauhati University, Assam, India  
CGPA: 8.19

## Publications

---

- 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>
- Rishiraj Adhikary**, Perna 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>
- Rishiraj Adhikary**, Aryan Varshney, Nipun Batra  
*Towards Continuous Respiration Rate Detection While Walking*  
\* Ubicomp/ISWC Adjunct Proceedings 2022  
<https://doi.org/10.1145/3570167>
- 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>
- Rishiraj Adhikary**, Tanmay Srivastava, Perna 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>
- 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>
- 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>
- 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/>

## 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).

## Service and Invited Talks

---

- December 2022, February 2024: **Reviewer** Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (ACM IMWUT)
- 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 4<sup>th</sup> 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.