

# Rishiraj Adhikary

PH.D. STUDENT, IIT GANDHINAGAR

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## Vision and Interest

My overall interest can be summarised as ‘Scalable Computational Health’. My work is in the domain of air pollution. My objective is to drive down sensing costs by bringing the sensors to existing wearables like masks and leveraging social media’s ubiquity to gauge public perception. I leverage the advances in computer science, including but not limited to ubiquitous computing, embedded sensing devices, machine learning, among others.

My vision is to develop preventive, continual healthcare systems to reduce deaths caused due to air pollution and respiratory illness.

## Education

### Pursuing Ph.D. in Computer Science

August 2019 - to date

IIT Gandhinagar, Gujarat, India

Advisor: Prof. Nipun Batra

Current CPI: 7.86

### BTech in Electronics and Communication

August 2011 - August 2015

Gauhati University, Assam, India

CGPA: 8.19

### HSC

April 2010

Miles Bronson Residential School, Guwahati, Assam, India

Percentage: 86.6

### SSC

April 2008

Kendriya Vidyalaya Laitkor Peak, Shillong, Meghalaya, India

Percentage: 81.1

## Publications

A\* or A conferences as per 2020 CORE Computer Science rankings are highlighted using \*

1. **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>
2. **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>
3. **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>
4. **Rishiraj Adhikary**, Zeel patel, Tanmay Srivastava, Nipun Batra, Mayank Singh, Udit Bhatia, Sarath Guttikunda  
*Vartalaap: What Drives AirQuality Discussions: Politics, Pollution or Pseudo-science [To Appear]*  
\* CSCW Proceedings 2021  
<https://dl.acm.org/doi/10.1145/3449170>

5. **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>
6. 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>
7. **Rishiraj Adhikary**, Perna Khanna, Tanmay Srivastava, Rohit Patil, Jacob Peplinski, Joe Breda, Nipun Batra, and Shwetak Patel  
*SpiroMask: Measuring Lung Function Using Masks [Under Review]*  
 \* Ubicomp/ISWC '21

## Service and Invited Talks

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- 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
- September 2020: **Student Volunteer** at the ACM International Joint Conference on Pervasive and Ubiquitous Computing and 2020 ACM International Symposium on Wearable Computers.
- February 2019: **Volunteer** at the 14th Inter-Research-Institute Student Seminar in Computer Science and ACM India Annual Event at IIT Gandhinagar, Gujarat, India.
- March 2016: **Resource Person** at Electronics workshop of Gauhati University Technical Festival, Guwahati, Assam, India.
- February 2014: **Organizer** of Robotics Workshop at the Gauhati University Technical Festival, Guwahati, Assam, India

## Teaching Experience

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### Machine Learning

Spring 2021

Teaching Assistant at IIT Gandhinagar, Gujarat, India

### Operating System

Fall 2019 and Fall 2020

Guest Lecturer and Teaching Assistant at IIT Gandhinagar, Gujarat, India

### Programming in C

Spring 2018

Graduate Teaching Assistant at IIIT Sricity, Andhra Pradesh, India

## Work Experience

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### Visiting Fellow

December 2019 (During Winter Break)

Council of Energy, Environment and Water (CEEW), New Delhi, India

### Junior Research Fellow

March 2019 - June 2019

IIT Gandhinagar, Gujarat, India

Advisor: Prof. Nipun Batra

### UI/UX Contract Worker

July 2016 - February 2018

Remote Service

### Front End Web Developer

January 2016 - June 2016

Avantix Innovation, Guwahati, Assam, India

### UI/UX Intern

September 2015 - December 2015

Bisect Online Solutions, Guwahati, Assam