

# Sanorita Dey

## Contact:

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## Research Interest

**Core:** Human-centered AI, behavior and belief change, persuasion and nudges, explainable and ethical AI, interactive and situated learning, human-AI collaboration, computational support for reflection and sensemaking

**Application:** AI-assisted learning and assessment, computing education and STEM participation, peer feedback and collaborative learning systems, AI-assisted interviews and career preparation, social computing, LLM-mediated information retrieval and interaction, ICTD, intelligent and mobile interactive systems

## Current Appointment

**Assistant Professor**, Aug 2020 - present  
Dept. of Computer Science and Electrical Engineering  
University of Maryland Baltimore County

## Education

**PhD**, Computer Science, 2020  
University of Illinois at Urbana-Champaign  
Advisor: Prof. Karrie Karahalios

**Master of Science**, Computer Science and Engineering, 2013  
University of South Carolina  
Advisor: Prof. Srihari Nelakuditi  
(**Outstanding Thesis Award**)

**Bachelor of Engineering**, Computer Science and Technology, 2007  
IEST (formerly B.E. College)  
Advisor: Prof. Sekhar Mandal  
(**Graduated with Honors**)

## Selected Honors

- Maria Pia Gratton International Fellowship, 2019
- “Top-5 paper” at SUI, 2019
- Dissertation Completion Fellowship, 2018
- Best Paper Honorable Mention Award at CHI, 2018
- Adobe Digital Marketing Research Award, 2016
- Outstanding thesis award for MS thesis, 2014
- SPARC Graduate Fellowship Award, 2013 presented by the Office of Vice President for Research, 2013
- Best poster award in HotMobile 2013
- 18th rank out of around 2,00,000 students in the board exam of 12th standard

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|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Grants &amp; Gifts</b>                | <ul style="list-style-type: none"> <li>● Mozilla Responsible Computing Challenge Grant (RCC), \$124,800 (2026)</li> <li>● Entrepreneurial Learning Lab (ELL), \$1,500 (2026)</li> <li>● COEIT Interdisciplinary Proposals (CIP), \$19,800 (2025-2026)</li> <li>● COEIT Interdisciplinary Proposals (CIP), \$19,780 (2024-2025)</li> <li>● Undergraduate Research Experiences (SURE) award, \$1,500 (2024)</li> <li>● Summer Research Faculty Fellowship (SURFF), \$6,000 (2022)</li> </ul> |
| <b>Pending Grant Applications</b>        | <ul style="list-style-type: none"> <li>● RITEL: Reimagining Reflective Learning and Feedback Literacy using an AI-supported Dialogic Response Process (NSF), \$483,010</li> <li>● CAREER: Understanding and Supporting Epistemic Alignment in Research Mentorship Through AI-Mediated Reflection (NSF), \$622,365</li> <li>● Computational Metis in Practice: Understanding Writing as Situated Reasoning in Computer Science Education (Spencer Foundation), \$49,900</li> </ul>          |
| <b>PhD Students Chair/Co-Chair</b>       | <ul style="list-style-type: none"> <li>● Saquib Ahmed, Summer 2027 (exp.). UMBC PhD, Chair</li> <li>● Md. Nazmus Sakib, Spring 2028 (exp.). UMBC PhD, Chair</li> <li>● Ishika Tarin, Summer 2030 (exp.). UMBC PhD, Chair</li> <li>● Sudipta Mondal, Summer 2030 (exp.). UMBC PhD, Chair</li> <li>● Sadia Nasrin Tisha, Spring 2028 (exp.). UMBC PhD, Co-Chair</li> </ul>                                                                                                                   |
| <b>PhD Students Committee Member</b>     | <ul style="list-style-type: none"> <li>● Paul Heiss, Spring 2028 (exp.), UMBC PhD, Member</li> <li>● Indrajit Ghosh, Fall 2025, UMBC PhD, Member</li> <li>● Priyanka Ranade, Spring 2024, UMBC PhD, Member</li> <li>● Anantaa Kotal, Spring 2024, UMBC PhD, Member</li> </ul>                                                                                                                                                                                                              |
| <b>MS Students Chair</b>                 | <ul style="list-style-type: none"> <li>● Isabella Lopez, Spring 2025, UMBC MS, Chair</li> <li>● Edosa Leta, Spring 2023, UMBC MS, Chair</li> </ul>                                                                                                                                                                                                                                                                                                                                         |
| <b>Master's Students Research Mentor</b> | <ul style="list-style-type: none"> <li>● Vaishnavi Sinha</li> <li>● Maga Manogna Rayasam</li> <li>● Tejo Gayathri Busireddy</li> <li>● Vaishnavi Sinha</li> <li>● Lokesh Medarametla</li> <li>● Abhinav Reddy Karra</li> <li>● Tarun Krishna Kolli</li> <li>● Abhinav Reddy Karra</li> <li>● Hrudaya Jinna</li> <li>● Anurag Sharma</li> <li>● Vaishnavi Mukala</li> <li>● Vamshi Krishna Ginna</li> <li>● Pravallika Vedere</li> <li>● Syed Waleed Tariq</li> </ul>                       |
| <b>BS Students Research Mentor</b>       | <ul style="list-style-type: none"> <li>● Bella Goltser, UMBC, CSEE</li> <li>● Maalini Srinivasan, UMBC, CSEE</li> <li>● Victor Li, UMBC, CSEE</li> </ul>                                                                                                                                                                                                                                                                                                                                   |

**High School  
Students  
Research Mentor**

- Aarna Malli Senthil, Marriotts Ridge HS
- Ami Mundra, Richard Montgomery HS
- Victor Liu, Centennial HS

**Publication**

Expecting Too Much, Getting Too Little: Exploring the Challenges and Design Opportunities of Asynchronous AI Interviewers

**Md. Nazmus Sakib**, Naga Manogna Rayasam, Sanorita Dey

CSCW 2026: ACM Computer-Supported Cooperative Work and Social Computing

ReflectEd: Evaluating Reflection-Driven Learning in an AI-Assisted System

**Md. Nazmus Sakib**, Ishika Tarin, Naga Manogna Rayasam, Manas Gaur, Sanorita Dey

AIED 2026: IAIED Conference on International Conference on AI in Education

When There Is No Right Answer: How Computing Students Navigate Open-Ended Problems through Collaborative Discussion and Peer Evaluation

**Ishika Tarin**, Rebecca Williams, Sanorita Dey

ITiCSE 2026: ACM conference on Innovation and Technology in Computer Science Education

Beyond Representation: Mechanisms of Culturally Affirming Mentorship for Black and Latinx Students in STEM

**Isabella Lopez**, Maria Sanchez, Sanorita Dey

RESPECT 2026: ACM SIGCSE Conference on Research on Equity and Sustained Participation in Engineering, Computing, and Technology ★ Best Paper Award)

Enhancing Image Comprehension: The Impact of AI-Generated Explanations on Perception of Altered and Synthetic Media

**Saquib Ahmed**, Tejo Gayathri Busireddy, Sanorita Dey

AIES 2025: Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society

COBIAS: Assessing the Contextual Reliability of Bias Benchmarks for Language Models

**Priyanshul Govil**, H Jain, V Bonagiri, A Chadha, P Kumaraguru, M Gaur, Sanorita Dey Proceedings of the 17th ACM Web Science Conference 2025

Understanding the Impact of YouTube Videos on Parents of Children with Developmental Delays and Disabilities

**Saquib Ahmed, MD Nazmus Sakib**, Sanorita Dey

GROUP 2025: ACM International Conference on Supporting Group Work

"You Don't See Too Many of Me, Too Many of Us, in That Area": Exploring the Challenges and Opportunities of Promoting STEM Education Among Black and Latinx Students"

**Isabella Lopez**, Sanorita Dey

ITiCSE 2024: ACM conference on Innovation and Technology in Computer Science Education

Why should I bother to break the norm?: Exploring the Prospects of Adopting Technology-Driven Solutions by Indian Shrimp Farmers

**Lokesh Medarametla**, Saquib Ahmed, Sanorita Dey

CSCW 2023: ACM Computer-Supported Cooperative Work and Social Computing

Fishing for Validation: Understanding Promises and Challenges of a Private Social Media Group for COVID-19 Long-Hauler Patients

**Abhinav Reddy Karra**, Ranjan Jaiswal, Sanorita Dey

CSCW 2022: ACM Computer-Supported Cooperative Work and Social Computing

It Is All About Criticism: Understanding the Effect of Social Media Discourse on Legal Crowdfunding Campaigns

**Sanorita Dey**, Brittany Duff, Karrie Karahalios

CSCW 2022: ACM Computer-Supported Cooperative Work and Social Computing

Computational Understanding of Narratives: A Survey

**Priyanka Ranade**; Sanorita Dey, Anupam Joshi, Tim Finin

IEEE Access 2022

Re-imagining the Power of Priming and Framing Effects in the Context of Political Crowdfunding Campaigns

**Sanorita Dey**, Brittany Duff, Karrie Karahalios

CHI 2022: ACM Human Factors in Computing Systems

Interpretable Explanations for Probabilistic Inference in Markov Logic

**KM Al Farabi**, S Sarkhel, S Dey, D Venugopal

2021 IEEE International Conference on Big Data (Big Data)

Recommendation for Video Advertisements based on Personality Traits and Companion Content

**Sanorita Dey**, Brittany Duff, Niyati Chhaya, Wai Fu, Vishy Swaminathan, Karrie Karahalios

IUI 2020: ACM International Conference on Intelligent User Interfaces

A persuasive approach to designing interactive tools around the promises and perils of social platforms

**Sanorita Dey**

PhD Thesis 2020: University of Illinois Urbana Champaign

VidLyz: An Interactive Approach to Assist Novice Entrepreneurs in Making Persuasive Campaign Videos

**Sanorita Dey**, Brittany Duff, Wai-Tat Fu, Karrie Karahalios

CSCW 2019: ACM Computer-Supported Cooperative Work and Social Computing

Understanding the Effect of the Combination of Navigation Tools in Learning Spatial Knowledge

**Sanorita Dey**, Wai-Tat Fu, Karrie Karahalios

SUI 2019: ACM Spatial User Interaction

★ Top-5 Papers

Effects of Socially Stigmatized Crowdfunding Campaigns in Shaping Opinions

**Sanorita Dey**, Karrie Karahalios, Wai-Tat Fu

CHI 2018: ACM Human Factors in Computing Systems

★ Best Paper Honorable Mention Award

Getting There and Beyond: Incidental Learning of Spatial Knowledge with Turn-by-Turn Directions and Location Updates in Navigation Interfaces

**Sanorita Dey**, Karrie Karahalios, Wai-Tat Fu

SUI 2018: ACM Spatial User Interaction

Fine-Grained Explanations using Markov Logic  
Khan Mohammad Al Farabi, Somdeb Sarkhel, **Sanorita Dey**, Deepak Venugopal  
ECMLPKDD 2019: The European Conference on Machine Learning and Principles  
and Practice of Knowledge Discovery in Databases

Understanding the Effects of Endorsements for Scientific Crowdfunding  
**Sanorita Dey**, Karrie Karahalios, Wai-Tat Fu  
CHI 2017: ACM Human Factors in Computing Systems

The Art and Science of Persuasion: Not All Crowdfunding Campaign Videos Are The  
Same  
**Sanorita Dey**, Brittany Duff, Karrie Karahalios, Wai-Tat Fu  
CSCW 2017: ACM Computer-Supported Cooperative Work and Social Computing

A scalable online platform for evaluating and training visuospatial skills of engineering  
students  
Z. Xiao, Y. Yao, C. Yen, **Sanorita Dey**, H. Wauck, J. Leake, B. Woodard, A. Wolters,  
W. Fu  
ASEE 2017: Annual Conference of the American Society of Engineering Education

AccelPrint: Imperfections of Accelerometer Make Smartphones Trackable  
**Sanorita Dey**, Nirupam Roy, Wenyuan Xu, Romit Roy Choudhury, Srihari Nelakuditi  
NDSS 2014: Annual Network and Distributed System Security Symposium

AccelPrint: Accelerometers are Different by Birth  
**Sanorita Dey**  
MS Thesis 2013: University of South Carolina

**Extended  
Abstract  
& Workshop  
Papers**

Analyzing the Sensitivity of Vision Language Models in Visual Question Answering  
Monika Shah, Sudarshan Balaji, Somdeb Sarkhel, Sanorita Dey, Deepak Venugopal  
GEM<sup>2</sup> 2025: Proceedings of the Fourth Workshop on Generation, Evaluation, and  
Metrics

The Dual Role of Student and Creator: Exploring the TikTok Experience  
Bharadwaj Kuruba Bulley, Shravika Tirumala, Bhavani Shankar Mahamkali, Md Naz-  
mus Sakib, Saquib Ahmed, Sanorita Dey  
CSCSW 2024: Companion Publication of the Conference on Computer-Supported Co-  
operative Work and Social Computing

Post-Roe Public Discourse: A Temporal Analysis of Discussion on US Abortion Law  
Changes  
Harisahan N Venkata, Varshitha Palakurthi, Sree Sai Bindu Devalam, Md Nazmus  
Sakib, Saquib Ahmed, Sanorita Dey  
CSCSW 2024: Companion Publication of the Conference on Computer-Supported Co-  
operative Work and Social Computing

Understanding the Effect of the Combination of Navigation Tools in Learning Spatial  
Knowledge  
**Sanorita Dey**, Wai-Tat Fu, Karrie Karahalios  
UIST 2019: ACM Symposium on User Interface Software and Technology

Videolyzer: An Interactive Platform for Making Videos Persuasive  
**Sanorita Dey**

IUI 2017: ACM International Conference on Intelligent User Interfaces

Know your Surroundings with an Interactive Map

**Sanorita Dey**

IUI 2015: ACM International Conference on Intelligent User Interfaces

Study the Effect of Allocentric and Egocentric Interfaces in Indoor Navigation

**Sanorita Dey**, John Lee, Karrie Karahalios, Wai-Tat Fu

HCI Consortium 2014

Leveraging Imperfections of Sensors for Fingerprinting Smartphones

**Sanorita Dey**, Nirupam Roy, Wenyuan Xu, Srihari Nelakuditi

HotMobile 2013: International Workshop on Mobile Computing Systems and Applications

Mitigating Distractions from Smartphones

Connor Bain,**Sanorita Dey**, Romit Roy Chowdhury, Srihari Nelakuditi

HotMobile 2013: International Workshop on Mobile Computing Systems and Applications

## Teaching Experience

- AI-Assisted Social Computing (CMSC 691/ CMSC 491) Fall 2026
- Data Structures (CMSC 341) Fall 2026
- Social/Ethical Issues in IT (CMSC 304) Spring 2026
- Data Structures (CMSC 341) Fall 2025
- Social/Ethical Issues in IT (CMSC 304) Spring 2025
- Data Structures (CMSC 341) Fall 2024
- Social and Crowd Computing (CMSC 691/ CMSC 491) Spring 2024
- Data Structures (CMSC 341) Fall 2023
- Social and Crowd Computing (CMSC 691/ CMSC 491) Spring 2023
- Data Structures (CMSC 341) Fall 2022
- Social and Crowd Computing (CMSC 691/ CMSC 491) Spring 2022
- Data Structures (CMSC 341) Fall 2021
- Social and Crowd Computing (CMSC 691/ CMSC 491) Spring 2021
- Social/Ethical Issues in IT (CMSC 304) Fall 2020
- Designing user-centric applications workshop 2015
- Wearable/handheld device programming workshop 2013
- Sensor augmented app development workshop 2013

## Professional Presentations

- Center for Research & Evaluation (CRE) Annual Symposium 2026 Roundtable Presenter
- COEIT Research Day Panel 2025: COEIT Interdisciplinary Proposal Awardees
- CWIT Research Talk 2024
- CWIT Research Talk 2023
- Social Visualization Seminar 2018: Investigating the effect of stigma in crowd-funding platforms
- Guest speaker at the seminar organized by Women in Computer Science (WCS) at UIUC

**Prototype  
Development**

**Indoor Navigation App for Cognitive Spatial Learning**

An customizable indoor navigation application to study the effect of navigation cues in acquiring incidental spatial knowledge

**Online Sketching Tool for Visuo-Spatial Skill Evaluation**

An online grid-based free-hand sketching tool to test and record visuo-spatial skill

**VidLyz: A tool for making persuasive videos**

An online interactive tool that allows users to explore the implications of audience-engagement persuasion factors in the context of campaign videos through contrasting examples, crowd-sourced subjective feedback on engagement factors

**Industry  
Experience**

**Adobe Systems Incorporated**

Data Science Research Intern

Spring 2018

**Cognizant Technology Solutions**

Associate Projects

Spring 2011

**Tata Consultancy Services**

System Engineer (British Telecom)

Fall 2007 - Fall 2010

**Service to  
the Profession**

- International Conference on Supporting Group Work (GROUP 2027): Associate Chair
- Conference on Human Factors in Computing Systems (CHI 2026): Associate Chair
- Computer-Supported Cooperative Work and Social Computing (CSCW 2025): Associate Chair
- Conference on Human Factors in Computing Systems (CHI 2025): Associate Chair
- AAAI Conference on Web and Social Media (ICWSM 2025): Reviewer
- International Conference on Supporting Group Work (Group 2025): Associate Chair
- AAAI Conference on Web and Social Media (ICWSM 2024): Reviewer
- Computer-Supported Cooperative Work and Social Computing (CSCW 2024): Associate Chair
- Conference on Human Factors in Computing Systems (CHI 2024): Associate Chair
- AAAI Conference on Web and Social Media (ICWSM 2023): Reviewer
- Computer-Supported Cooperative Work and Social Computing (CSCW 2023): Associate Chair
- Conference on Human Factors in Computing Systems (CHI 2021): Associate Chair
- Conference on Human Factors in Computing Systems (CHI 2021): Session Chair
- Cognitive Inefficiency (CogSci 2016): reviewer
- International Conference on Healthcare Informatics (ICHI 2016): Web Chair
- N2Women workshop (MobiHoc 2012): Organizer
- University of South Carolina Graduation Day 2012: Reviewer

**Service to UMBC**

- CSEE Graduate Committee Member 2026
- CSEE Publicity Committee Member 2026
- COEIT Faculty Mentor 2026
- Graduate Admission Committee Reviewer 2026
- CWIT/Cyber Scholar Reviewer 2026
- Graduate Admission Committee Member 2025
- COEIT Faculty Mentor 2025
- CWIT/Cyber Scholar Reviewer 2025
- Tenure Track Faculty Hiring Committee of the HCC track 2024
- Graduate Admission Committee Member 2024
- COEIT Faculty Mentor 2024
- CWIT/Cyber Scholar Reviewer 2024
- COEIT Faculty Mentor 2023
- Graduate Admission Committee Member 2023
- CWIT/Cyber Scholar Reviewer 2023
- Graduate Admission Committee Member 2022
- Tenure Track Faculty Hiring Committee CSEE 2022
- COEIT Faculty Mentor 2022
- Graduate Admission Committee Member 2021