

Mrunal Dhaygude

MASTERS STUDENT · HUMAN-COMPUTER INTERACTION, UNIVERSITY OF MARYLAND, COLLEGE PARK

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Education

University of Maryland, College Park

MASTERS IN HUMAN-COMPUTER INTERACTION

- Advisor: Dr. Huaishu Peng

College Park, MD

Aug 2022 - May 2024

Birla Institute of Technology and Science, Pilani

BACHELORS IN ELECTRONICS AND INSTRUMENTATION

- Advisor: Dr. Dipanjan Chakraborty

Hyderabad, India

Aug 2017 - Jun 2021

Research Interests

Research Interests: Education, Human-Robot Interaction, Social Computing, ICTD, Tangible Interaction Technologies, Human-AI, Generative AI for Design, Sustainability.

Publications

PUBLISHED

Mrunal Dhaygude, Naitik Lapsiya, Dipanjan Chakraborty. 2022. There is No App for That: Manifestations of the Digital Divides During COVID-19 School Closures in India. *Proceedings of the ACM on Human-Computer Interaction, Volume 6, Issue CSCW2*. DOI: <https://doi.org/10.1145/3555140>.

Mrunal Dhaygude, Dipanjan Chakraborty. 2020. Rethinking Design of Digital Platforms for Emergent Users: Findings from a Study with Rural Indian Farmers. *IndiaHCI '20: Proceedings of the 11th Indian Conference on Human-Computer Interaction*. DOI: <https://doi.org/10.1145/3429290.3429297>

IN PREP

Mrunal Dhaygude, Zeyu Yan, Huaishu Peng. Understanding Sustainability Practices and Challenges in Making and Prototyping. *ACM Transactions on Computer-Human Interaction*.

Research Experience

Small Artifacts Lab, University of Maryland - Dept of Computer Science

ADVISOR: DR. HUAISHU PENG

- Researching social robots' role in facilitating multilingual multiparty conversations, focusing on design paradigms for turn-taking, gaze patterns, and gestures in Human-Robot Interactions through user studies.
- Conducted qualitative research with researchers, makerspace members and space managers to understand the current practices, challenges and opportunities in making sustainably.
- Preparing a manuscript on "Understanding Sustainability Practices and Challenges in Making" for TOCHI.

College Park, MD

Dec 2022 - Present

Birla Institute of Technology and Science - Dept of Computer Science

ADVISOR: DR. DIPANJAN CHAKRABORTY

- Researched digital divides during the COVID-19 pandemic, emphasizing education and societal disparities, using mixed-methods. Provided insights for researchers and policymakers in education.
- Explored information-seeking behavior and digital platform usage among first-time users, especially rural Indian farmers, via qualitative research. Developed guidelines for designing technology for emergent users.
- Published findings in CSCW'22 and IndiaHCI'20 conferences.

Hyderabad, India

2019-2021

Ongoing Projects

Social Robots to help in multilingual conversations for non-native language speakers

College Park, MD

ADVISOR: DR. HUAISHU PENG

Dec 2022 - Present

- Exploring the implementation of social robots in facilitating multilingual multiparty conversations. Studying design paradigms for turn-taking, gaze patterns, and gestures in Human-Robot Interactions through user studies.

PianoVerse VR: Immersive Piano Learning with Wearable Haptic Feedback Glove

College Park, MD

ADVISOR: DR. HUAISHU PENG

Aug 2023 - Present

- Designing a Wearable Haptic Feedback Glove, incorporating haptic and visual feedback for enhanced piano learning in virtual reality, alongside an Electronic Muscle Simulation System to assist with finger and hand movements.

Professional Experience

- 2021-2022 **Associate UX Designer**, OLX Group
- 2021 **Product Design Intern**, OLX Group
- 2020 **Product Innovation Intern**, MapmyIndia
- 2020 **Software Development Intern**, FinIQ Consulting

Presentations

Conference Presentation: There is No App for That: Manifestations of the Digital Divides During COVID-19 School Closures in India. CSCW'22(Online).

Conference Presentation: Rethinking Design of Digital Platforms for Emergent Users: Findings from a Study with Rural Indian Farmers. IndiaHCI'20(Online).

Invited Talk: Design Processes and Practices followed in the Industry. BITS Pilani, Hyderabad, India.

Invited Talk: Getting into UX Design. BITS Pilani, Hyderabad, India.

Teaching Experience

- Fall'23 **Integrated Capstone for Information Science**, Teaching Assistant
- Spring'23 **Integrated Capstone for Information Science**, Teaching Assistant
- Fall'22 **Integrated Capstone for Information Science**, Teaching Assistant

Outreach & Professional Development

SERVICE AND OUTREACH

- Oct 2023 **UIST 2023**, Student Volunteer.
- Aug 2023 **COMPASS 2023**, Selected for the Masters and Doctoral Consortium.