

# Teaching Portfolio

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Lab tour and interactive activity session with 8th-grade students at the Designing Participatory Futures (DARE) Lab, co-organized by me and my labmate, Lydia Stamato (third from the left), as part of the Educational Pathways and Partnerships initiative.

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# Education

## **Ph.D. in Human-Centered Computing, University of Maryland, Baltimore County (UMBC)**

2021- Present

Advisor: **Dr. Foad Hamidi**

**Dissertation Title:** Investigating the Use and Appropriation of Digital Technology in Contexts of Infrastructural Limitations.

## **M.Sc. in Human-Centered Computing, University of Maryland, Baltimore County (UMBC)**

2021- 2023

### **Notable Courses:**

**HCC 729:** Human-Centered Design

**HCC 760:** Human-Computer Interaction

**HCC 727:** Computer Supported Cooperative Work

**IS 800:** Special Topics in Information Systems: Privacy

**IS 804:** Advanced Quantitative Methods for IS Research:  
Statistical Learning

**IS 805:** Advanced Field Research Methods



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Photograph from UMBC Commons during a campaign against domestic violence.

## **B.Sc. in Electrical and Electronic Engineering, Bangladesh University of Engineering and Technology (BUET)**

2014- 2019

### **Notable Courses:**

**CSE 109:** Computer Programming

**EEE 212:** Numerical Technique Laboratory

**EEE 303:** Digital Electronics

**EEE 314:** Electrical Service Design

**EEE 309:** Communication Theory

**EEE 311:** Digital Signal Processing I

**EEE 315:** Microprocessor and Interfacing

**IPE 493:** Industrial Management

**EEE 401:** Control System I

**EEE 435:** Optical Fiber Communication

**IPE 473:** Power Electronics

**EEE 425:** Biomedical Instrumentation

**EEE 439:** Mobile Cellular Communication



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Photograph from EEE Day celebration at BUET.

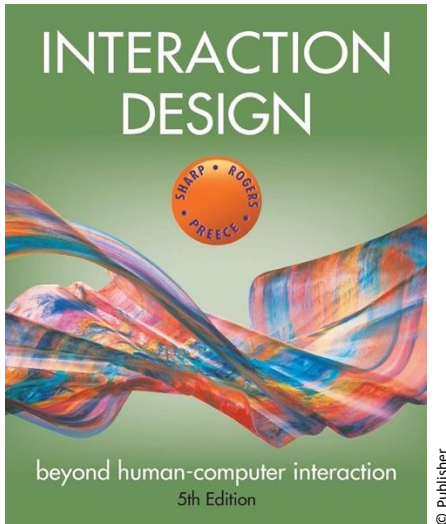


# Teaching Experience

## IS 303 : Fundamentals of Human-Computer Interaction

### Role: Graduate Teaching Assistant

**Textbook:** Sharp, H., Preece, J., and Rogers, Y. (2019)  
Interaction Design Beyond Human-Computer Interaction (5th ed.). Wiley, New York



**Course description:** This course provides a survey of human factors and human computer interaction relevant to the design and use of information systems. It describes the contributions of information systems, computer science, psychology, sociology and engineering to human-computer interaction. Emphasis is placed on human factors theories, human information processing concepts, interaction design approaches and usability evaluation methods. Application areas and current research are also reviewed.

### Semesters:

**Fall 2021:** Instructor: Dr. Foad Hamidi; 91 students.

**Spring 2022:** Instructor: Dr. Ravi Kuber; 68 Students.

**Fall 2022:** Instructor: Dr. Foad Hamidi; 70 students.

**Spring 2023:** Instructor: Dr. Yaxing Yao; 72 students.

### Responsibilities:

- Conduct 11 lab discussion sessions throughout the semester, typically divided into four sections.
- Present and explain HCI and design principles covered in lecture classes.
- Develop assignments that allow students to apply HCI principles to existing websites and products.
- Explain assignments and related HCI concepts to students, both in group settings and one-on-one when needed.
- Guide students in applying design principles to redesign existing products using pen and paper or simple design tools like PowerPoint.
- Assign and oversee a final project for the class.
- Proctor the mid-term exam.
- Grade lab assignments, the mid-term exam, and final projects.
- Manage attendance and overall coordination of lab discussion sessions.

Note: This course is typically assigned to two TAs, who share the workload.

**Guest lecturing:** I have guest lectured on the following topics when the instructor asked for it.

- **Goals of Interaction Design | Fall 22**
- **The User-Centered Design Process | Spring 2023**

# Teaching Experience

## COMP 101 : Computational Thinking and Design

### Role: Graduate Teaching Assistant

Language/platform used for programming tasks:

Processing; <https://processing.org/>



**Course description:** This course is designed for students in the first or second semester at UMBC who have declared a computing major: business technology administration, computer engineering, computer science, or information systems. Students will participate and learn about broad topics in computing including problem solving in human-centered computing, graphics and games, data management and exploration, hardware and systems, intelligent solutions, and academic and professional skills. This course includes an introduction to computer programming.

### Semesters:

**Fall 2023:** Instructor: Mark Berczynski; 245 students.

**Spring 2024:** Instructor: Mark Berczynski; 55 students.

### Responsibilities:

- Teach two sections (out of seven on Fall 2023) of the course as the instructor.
- Coordinate with a team of eight undergraduate teaching fellows (UTFs) to support students with programming tasks and grading.
- Explain fundamental programming concepts, including live coding demonstrations when necessary.
- Design and assign class exercises to reinforce programming skills.
- Lead discussions on the societal and ethical aspects of computing.
- Proctor mid-term exam.
- Grade final projects.
- Conduct a session on research and graduate school, providing insights into research opportunities for undergraduate students.

# Teaching Experience

## IS 805 : Advanced Field Research Methods

**Role: Graduate Teaching Assistant : Grader**

**Primary Textbook:** Tisdell, E. J., Merriam, S. B., & Stuckey-Peyrot, H. L. (2025). Qualitative research: A guide to design and implementation. John Wiley & Sons.



**Course description:** This course trains the advanced student of Information Systems in the research methodologies required to successfully undertake original field research and to evaluate the growing scientific literature based on this approach. The course will engage the interpretivist paradigm and the qualitative research traditions within IS. Specifically, it will address the research design theory (e.g. Grounded Theory), data collection techniques (e.g. observation, interviewing, focus groups, surveys), analysis methods (e.g. coding for content and protocol), and reporting frameworks (e.g. case study, ethnography). This material is concertized via student-designed research projects. Additionally, contemporary IS field research will be critiqued, training students in publishing their own field research in this discipline.

### Semesters:

**Fall 2024:** Instructor: Dr. Foad Hamidi; 12 students.

### Responsibilities:

- Grading weekly quizzes.
- Guest lecturing on Qualitative Data Analysis techniques and sharing practical experiences on qualitative data analysis.
- Co-organizing a workshop on using Nvivo software for qualitative data analysis.
- Grading the final take home exam.

# Design Training

## Design Workshop

Contents:

User-Centric Design,  
Value-Sensitive Design,  
Adversarial Design,  
Non-Linear Design.

Conducted by: Dr. Syed Ishtiaque Ahmed, Associate Professor, University of Toronto

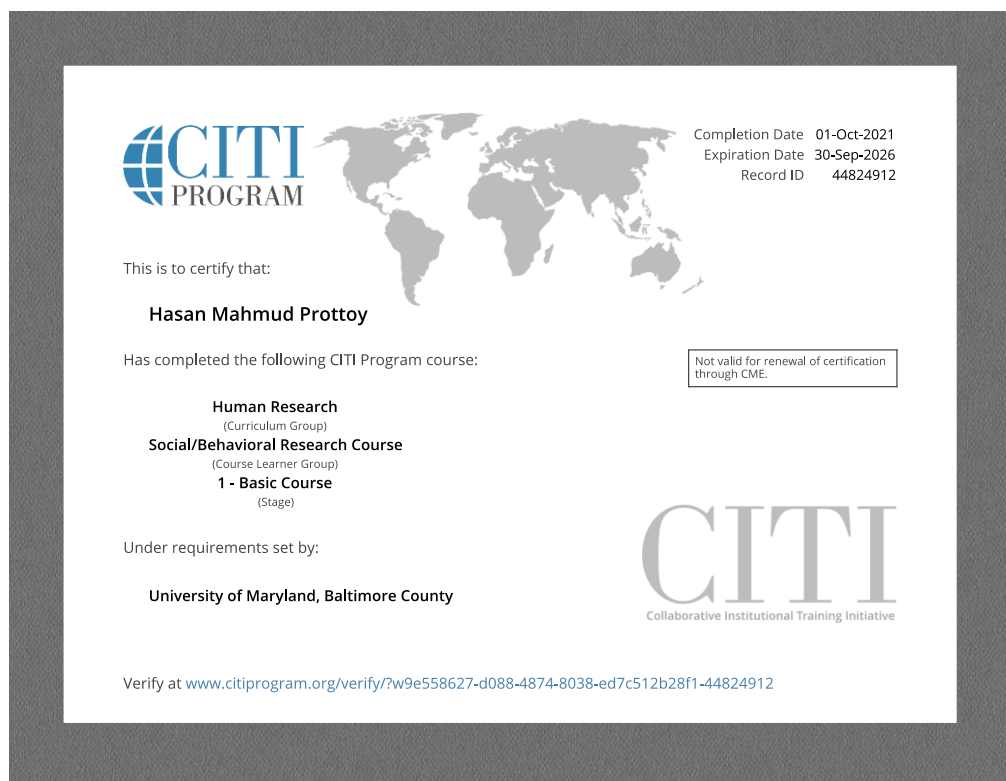
Organized by BUET & UofT at IAC, BUET

<https://sites.google.com/view/designwork2019/>

Date: June 29<sup>th</sup>- July 20<sup>th</sup>, 2019

# Research Training

Completed CITI training for human subject research.



# Teaching Philosophy Statement

In my research and academic work, I am always drawn toward a few key themes: mitigating barriers to technology access, promoting the ethical and sustainable use of technology, and using participatory approaches to co-envision alternative futures where marginalized communities have agency in shaping technological landscapes rather than being passive recipients of innovation. My teaching philosophy is heavily shaped by these experiences.

As an educator and researcher, my teaching philosophy is grounded in fostering critical engagement, inclusivity, and participatory learning. I believe that learning is most effective when students are encouraged to question existing systems, reflect on their lived experiences, and actively contribute to knowledge creation. Drawing from my research on digital technology access, infrastructural constraints, and grassroots innovation, I aim to create a classroom environment where students explore the social and political dimensions of technology while developing practical skills to address real-world challenges.

My approach to teaching is highly interactive and student-centered. I integrate experiential learning methods, such as hands-on workshops, participatory design activities, and community-engaged projects, to bridge theoretical concepts with applied practice. I encourage students to critically examine technology's role in society, particularly its impact on marginalized communities, and to consider how they can design and advocate for more equitable systems.

Furthermore, I am committed to fostering an inclusive learning space where diverse perspectives are valued. I recognize that students bring unique backgrounds and expertise to the classroom, and I strive to create opportunities for peer collaboration and co-learning. By emphasizing open dialogue and reflective discussions, I aim to cultivate a classroom culture where students feel empowered to share their ideas and challenge dominant narratives.

Ultimately, my goal as an educator is to equip students with the analytical tools and creative confidence to engage with technology as both users and designers of more just and inclusive futures.