

Ariful Islam Anik, PhD

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Research Interest

My research examines how explanation design and users' AI literacy shape their understanding and use of AI systems. More broadly, I work in the domain of human-centered explainable AI to enhance transparency, usability, and actionability of AI explanations while minimizing potential harms to users.

General Interest: AI Transparency, Human-Centered Explainable AI, Human-Computer Interaction.

Publications

Selected Conference Papers

- Ariful Islam Anik**, Andrea Bunt. 2026. Designing Effective Training Dataset Explanations: The Impact of Information Depth and Progressive Disclosure. **IUI 2026**
DOI: 10.1145/3742413.3789087
- Ariful Islam Anik**, Andrea Bunt. 2024. Supporting User Critiques of AI Systems via Training Dataset Explanations: Investigating Critique Properties and the Impact of Presentation Style. **VL/HCC 2024**
DOI: 10.1109/VL/HCC60511.2024.00024
- Ariful Islam Anik**, Andrea Bunt. 2021. Data-Centric Explanations: Explaining Training Data of Machine Learning Systems to Promote Transparency. **CHI 2021**
DOI: 10.1145/3411764.3445736
- Ananta Chowdhury, Timmy Wang, **Ariful Islam Anik**, Andrea Bunt. 2025. The Landscape of Digital Tech Disengagement Solutions for Early Adolescents: Insights from a Systematic Scoping Review and App Analysis. **CSCW 2025**
DOI: 10.1145/3757674

Selected Workshop Papers

- Ariful Islam Anik**, Andrea Bunt. 2024. Diversity Challenges in Recruiting for Human-Centered Explainable AI Studies. **DOI:** 10.1109/VL/HCC60511.2024.00067 **VL/HCC 2024**
- Ariful Islam Anik**, Andrea Bunt. 2023. Understanding and Mitigating the Negative Consequences of Training Dataset Explanations. **Link** **H CXAI @ CHI 2023**
- Ariful Islam Anik**, Andrea Bunt. 2021. Investigating Explanations that Target Training Data. **Link** **TE xSS @ IUI 2021**

Experiences

Graduate Research Assistant, University of Manitoba, Canada. **Sept 2018 – Apr 2026**

- Conducted research on human-centered explainable AI (HCXAI), focusing on improving the usability and transparency of AI systems through user-centered design and evaluation.
- Designed and implemented prototypes, developed study protocols, and led mixed-methods user studies to assess understanding, cognitive load, and critique accuracy.
- Analyzed both quantitative (e.g., parametric and non-parametric statistical tests) and qualitative (e.g., thematic analysis) data to generate actionable insights.
- Authored and published research in top-tier venues, including ACM and IEEE conferences (e.g., ACM CHI 2021, IEEE VL/HCC 2024).
- Collaborated with other HCI researchers and co-mentored undergraduate students on HCI research projects.

Sessional Instructor, University of Manitoba, Canada. **Sept 2024 – Dec 2024**

- Facilitated discussions and activities for a third-year HCI course (COMP 3020), to 60 students.
- Provided direction, formative feedback, and guidance on student projects, helping students critically reflect on their UX decisions and align their work with HCI best practices.

Assistant Programmer, Islamic University of Technology, Bangladesh. **Dec 2016 – Aug 2018**

- Developed and maintained internal applications for accounting, procurement, and cafeteria management using Java EE and JSF.
- Wrote SQL queries in Oracle and MySQL databases to generate financial Jasper reports for administrators.

- Analyzed system usage and error reports to identify issues and opportunities for improvement, and implemented fixes or enhancements.
- Collaborated with administrative staff to understand workflows and translate them into technical requirements and design changes.

Software Development Intern, DataSoft Systems, Bangladesh.

Nov 2015 – Dec 2015

- Contributed to the development of HR related features and mobile extensions of a microfinance platform.
- Integrated location based features using Google Maps APIs and tested data collection from field devices.
- Assisted with debugging and documented small fixes and configuration changes.

Education

University of Manitoba, PhD in Computer Science

Sept 2020 – May 2026

Advisor: Dr. Andrea Bunt

Research Focus: Supporting AI Transparency through Designing Explanations and Assessing AI Literacy .

University of Manitoba, MSc in Computer Science

Sept 2018 – Dec 2020

Advisor: Dr. Andrea Bunt

Research Focus: Investigating the Feasibility of Explanations that Communicate Training Dataset Information.

Islamic University of Technology, BSc in Computer Science and Engineering

2012 – 2016

Skills

UI/UX Research: User-Centered Design, Experiment Design, Prototyping, User Studies, UI/UX, Interviews, Surveys, Heuristic Evaluation, Cognitive Walkthroughs, Personas, Usability Testing.

Data Analysis: Mixed Methods, Statistical Analysis (Parametric & Nonparametric), Qualitative Analysis.

Programming: Java, Python, C/C++ , HTML, CSS, JavaScript, SQL, Machine Learning.

Awards and Recognitions

Travel Award

2026, 2024

Faculty of Graduate Studies Research Completion Scholarship

2023

Computer Science Progression Award

2022

University of Manitoba Graduate Fellowship

2020-2024

Computer Science Entrance Award

2018-2020

Academic Services

Teaching Assistant / Grader , University of Manitoba, Canada.

Fall 2019 – Fall 2025

Teaching Assistant and grader for first-year level programming courses (e.g., COMP 1010, COMP 1012, COMP 1020), third-year and fourth-year level Human-Computer interaction courses (COMP 3020, COMP 4020).

Graduate Student Representative in CS Faculty Search Committee, University of Manitoba, Canada.

2022

Program Committee Member, Human-centered XAI workshop @ ACM CHI.

2023, 2024

Paper Reviewer - CHI 22, 23, 24, 25, 26, CSCW 24, DIS 22, TIIS 24.

Special recognitions for outstanding reviews: CHI 23, CHI 24, CHI 26

Graduate Courses

Computational Geometry, with Dr. Stephane Durocher

Fall 2021

Advanced Topics in Mobile HCI, with Dr. Pourang Irani

Winter 2021

CS Education Research and EdTech , with Dr. Celine Latulipe

Data-Driven Software Engineering, with Dr. Shaowei Wang

Fall 2020

Advanced Human-Robot Interaction, with Dr. James Young

Winter 2019

Security and Privacy, with Dr. Noman Mohammed

Advanced Human-Computer Interaction, with Dr. Andrea Bunt

Fall 2018

Online Algorithms, with Dr. Shahin Kamali