

# MD NAIMUL HOQUE

[nhoque@umd.edu](mailto:nhoque@umd.edu) ◇ [naimulh0que.github.io](https://naimulh0que.github.io) ◇ [Google Scholar](#)

## RESEARCH INTERESTS

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Human-Computer Interaction, Visual Analytics, Human-Centered AI, and Accessibility

## EDUCATION

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**University of Maryland, College Park, MD, USA**

*Aug 2020 - Present*

Ph.D. in Information Studies

Human-Computer Interaction Lab (HCIL), Advisor: Niklas Elmqvist

**Stony Brook University, NY, USA**

*Aug 2018 - May 2020*

M.S. in Computer Science

Advisor: Klaus Mueller

**University of Dhaka, Dhaka, Bangladesh**

*2011-2015*

B.Sc. in Computer Science and Engineering

## PROFESSIONAL EXPERIENCE

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**Graduate Research Assistant**

MD, USA

*University of Maryland, Advisor: Niklas Elmqvist*

*May 2022-*

Projects: Creativity support tools; Accessible data representation.

**Research Intern**

Virtual

*Bosch Research, Advisor: Liang Gou*

*May 2021 - Aug 2021*

Project: interactively programming large-scale image dataset.

**Graduate Teaching Assistant**

MD, USA

*University of Maryland, College Park*

*Aug 2020 - April 2022*

Courses: Data Visualization (INST760); Introduction to Data Science (INST737); Advanced Data Science (INST750); Big Data Analysis (INST767)

**Graduate Research Assistant**

NY, USA

*Stony brook University, Advisor: Klaus Mueller*

*May 2019- Aug 2020*

Projects: Visual causal model for transparent decision making; Interactive tool for live telecasting.

## PUBLICATION

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### Peer Reviewed Conference and Journal Papers

1. Md Naimul Hoque, Bhavya Ghai, Kari Kraus, Niklas Elmqvist. PORTRAYAL: Leveraging NLP and Visualization for Analyzing Fictional Characters. *Proceedings of the ACM Conference on Designing Interactive Systems (DIS)*, ACM, New York, NY, USA, 2023.
2. Md Naimul Hoque, Md Ehtesham-Ul-Haque, Niklas Elmqvist, Syed Masum Billah. Accessible Data Representation with Natural Sounds. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, ACM, New York, NY, USA, 2023. <https://doi.org/10.1145/3544548.3581087>. (pdf)
3. Md Naimul Hoque, Wenbin He, Shekar Arvind Kumar, Liang Gou, Liu Ren. Visual Concept Programming: A Visual Analytics Approach to Injecting Human Intelligence at Scale. *IEEE Transaction on Visualization and Computer Graphics*, 2022. <https://doi.org/10.1109/TVCG.2022.3209466>. (pdf)

4. Md Naimul Hoque, Bhavya Ghai, Niklas Elmqvist. DramatVis Personae: Visual Text Analytics for Identifying Social Biases in Creative Writing. *Proceedings of the ACM Conference on Designing Interactive Systems (DIS)*, ACM, New York, NY, USA, 2022. <https://doi.org/10.1145/3532106.3533526>. (pdf) (video) (github) (try it out!)
5. Md Naimul Hoque, Klaus Mueller. Outcome-Explorer: A Causality Guided Interactive Visual Interface for Interpretable Algorithmic Decision Making. *IEEE Transaction on Visualization and Computer Graphics*, 2021. <https://doi.org/10.1109/TVCG.2021.3102051>. (pdf) (video)
6. Md Naimul Hoque, Nazmus Saquib, Syed Masum Billah, and Klaus Mueller. Toward Interactively Balancing the Screen Time of Actors Based on Observable Phenotypic Traits in Live Telecast. *Proceedings of the ACM on Human-Computer Interaction (CSCW)*, ACM, New York, NY, USA, 2020. <https://doi.org/10.1145/3415225>. (pdf) (video)
7. Md Naimul Hoque, Choudhury Farhan Ahmed, Nicolas Lachiche, Carson K. Leung, Hao Zhang. Reframing in Clustering. *IEEE 28th International Conference on Tools with Artificial Intelligence (ICTAI)*, 2016. (pdf)

### Workshops, Posters, and Extended Abstracts

1. Bhavya Ghai, Md Naimul Hoque, Klaus Mueller. WordBias: An Interactive Visual Tool for Exploring Intersectional Social Biases Encoded in Word Embeddings. *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI)*, ACM, New York, NY, USA, 2021. (pdf) (github) (video)
2. Md Naimul Hoque, Niklas Elmqvist. 2021. Towards Using Visual Analytics to Promote Diversity, Equity, and Inclusion. *Artificially Intelligent Technology for the Margins: A Multidisciplinary Design Agenda. CHI Workshp*, 2021.
3. Md Naimul Hoque, Darius Coelho, Klaus Mueller. Examining the Visualization Practices of Data Scientists on Kaggle. *InfoVis Poster*, 2019.
4. Md Mehedi Hassan, Ashik Adnan, Asif M. Saleheen, Md Naimul Hoque. Understanding the Patterns of Crime Reports in a Popular Bangladeshi Newspaper. *Companion of ACM CSCW*, 2019. (pdf)
5. Md Naimul Hoque, Rawshan E. Fatima, Manash Mandal, Nazmus Saquib. Evaluating gender portrayal in Bangladeshi TV. *Machine Learning for the Developing World, NIPS Workshop*, 2017. (pdf)

### AWARDS AND ACHIEVEMENTS

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- Dr. Dana Rotman Doctoral Student Travel Awards. iSchool, University of Maryland, College Park. 2021
  - Doctoral Student Research Award (DRSA). iSchool, University of Maryland, College Park. 2021. (\$1000)
  - Chairman's Fellowship. Stony Brook University. 2018. (\$3000)