

Md Naimul Hoque

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Education

Ph.D. in Information Studies <i>University of Maryland (UMD), College Park</i>	2024 (Expected)
M.S. in Computer Science <i>Stony Brook University (SBU)</i>	2020
B.Sc. in Computer Science <i>University of Dhaka, Bangladesh</i>	2015

Research Experience

Graduate Research Assistant, UMD <i>Advisor: Niklas Elmqvist</i>	Sep 2020 - Present
Research Intern, Bosch Research <i>Advisor: Liang Gou</i>	May 2021 - Aug 2021
Graduate Research Assistant, SBU <i>Advisor: Klaus Mueller</i>	May 2019 - Aug 2020

Publications

Conference and Journal Papers

1. Shahreen Salim Aunti, Md Naimul Hoque, Klaus Mueller. Belief Miner: A Methodology for Discovering Causal Beliefs and Causal Illusions from General Populations. *Proc. ACM Hum.-Comput. Interact.* 7, CSCW2, 2023. (accepted with minor revision)
2. Md Naimul Hoque, Niklas Elmqvist. Dataopsy: Scalable and Fluid Visual Exploration using Aggregate Query Sculpting. *IEEE Transaction on Visualization and Computer Graphics*, 2023. (to appear)
3. 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. ([pdf](#)) ([demo](#))
4. 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](#))
5. 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](#))
6. 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!](#))

7. 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)
8. 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)
9. 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 Abstract

1. Md Naimul Hoque, Niklas Elmqvist. Augmenting Human-AI Co-Writing with Interactive Visualization. *In2Writing Workshop, ACM CHI*, 2023.
2. 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)
3. 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.
4. Md Naimul Hoque, Darius Coelho, Klaus Mueller. Examining the Visualization Practices of Data Scientists on Kaggle. *InfoVis Poster*, 2019.
5. 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)
6. 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)

Teaching Experience

Instructor, UMD <i>Course: Data Visualization (graduate level)</i>	Sep 2023 - Present
Graduate Teaching Assistant, UMD <i>Courses: Data Visualization, Data Science, Big Data Analysis</i>	Sep 2020 - May 2022
Graduate Teaching Assistant, SBU <i>Courses: Data Structure, Data Science</i>	Sep 2020 - May 2022
Lecturer, Eastern University, Bangladesh <i>Courses: Introduction to Programming, Data Structure</i>	July 2015 - May 2018

Invited Talks

giCentre, City, University of London	May, 2023
HCIL Symposium, University of Maryland	April, 2023
DGP Lab, University of Toronto	Feb, 2023

Awards and Honors

Doctoral Student Research Award (\$1000), UMD	May, 2023
Dr. Dana Rotman Doctoral Student Travel Awards (\$130), UMD	Feb, 2021
Doctoral Student Research Award (\$1000), UMD	March, 2021
Chairman's Fellowship (\$3000), SBU	Aug, 2018