

Uzma Haque Syeda

Ph.D. Student at Khoury College of Computer Sciences, Northeastern University
857.329.8802 (Mobile) | syeda.u@northeastern.edu | Boston, MA

Data Visualization and HCI researcher with a focus on developing and validating visualization theory and design, evaluation methodologies, pedagogical methods, design and replication studies and a passion for teaching.

EDUCATION

Northeastern University (2018 – Present)

- Computer Science Ph.D. Student (Graduate Research Assistant) at the Data Visualization Lab

Northeastern University (2018 – 2022)

- M.S. in Computer Science

University of Dhaka (2013 – 2017)

- B.Sc. in Electrical and Electronic Engineering

SKILLS

Research

Qualitative Survey design, Grounded Theory, Qualitative and Quantitative Evaluation, User-Centered Design, In-person Experimental design, Data Analysis, Latex, Design study theory and implementation, Replication study framework, developing Visualization theory and methods.

Web and Databases

Responsive Web Design, Node.js, Firebase, MongoDB, SVG, HTML, CSS

Data Science, Design and Visualization

D3.js, Tableau, SciPy (pandas, NumPy & Matplotlib), MATLAB, Figma, Altair

Programming Languages

JavaScript, Python, C, Assembly language (Intel 8086)

Ph.D. Coursework

Information Visualization, Human Computer Interaction, Algorithms, Advanced Algorithms, Intensive Computer Systems, Machine Learning, Special Topics in Data Visualization

AWARDS AND FELLOWSHIPS

- **Best Paper Award at CHI 2020 Conference on Human Factors in Computing Systems** for the paper “Design Study “Lite” Methodology: Expediting Design Studies and Enabling the Synergy of Visualization Pedagogy and Social Good.”
Syeda, U.H., Murali, P., Roe, L., Berkey, B. and Borkin, M.A.
DOI: [10.1145/3313831.3376829](https://doi.org/10.1145/3313831.3376829)
- **1-year Graduate Fellowship Award from the Khoury College of Computer Sciences, Northeastern University.** This fellowship is awarded to top admitted PhD candidates in recognition of their outstanding academic accomplishments.
- **Academic Technology Scholar fellowship.** This semester-long fellowship is a practicum course and training to help support faculty with integrating and using technology to support teaching and learning

PROFESSIONAL EXPERIENCE

Research Experience

- Graduate Research Assistant in the VIS Lab at Khoury College of Computer Sciences, Northeastern University. **(Fall 2018 - Present)**, **Advisor:** Dr. Michelle A. Borkin
- **Academic Technology Scholar (Summer 2022)**
- Undergraduate Research on a project titled “**Visual behavior analysis between neuro-typical children and children with Autism Spectrum Disorder**” (2016 - 2017), **Advisor:** Dr. Md Atiqur Rahman Ahad

Contributed Talk

- **IEEE VIS 2021**, Workshop: Visualization for Social Good, “**Facilitating Visualization for Social Good in Academic Courses**” (<https://vis4good.github.io/>)
- **IEEE VIS 2019**, Tutorial: Visualization for Social Good, “**Service-Learning in Visualization**”

Organizing Experience

- **IEEE VIS 2019**, Tutorial: **Visualization for Social Good:** <https://vis4good.github.io/tutorial19.html>

Teaching Experience

- Teaching Assistant in **Data Science(DS) 4200: Information Presentation & Visualization** (Fall 2019, Fall 2021, Spring 2022, Fall 2022)
- Service-Learning Teaching Assistant in **DS 4200** (Spring 2021)
- **Projected to teach Data Science 4200: Information Presentation & Visualization** (Spring 2023)

Outreach and Volunteering Experience

- Program Committee member for **IEEE VIS 2021 and 2022 Workshop on Visualization for Social Good** (<https://vis4good.github.io/>)
- Volunteered and taught Data Visualization (delivered a lecture on “Common mistakes in Data Visualization” and taught the basics of Tableau) in the Multi-media CS course at Boston Latin Academy. (**Spring 2019**)
- Volunteered at the International Conference on Imaging, Vision & Pattern Recognition (**ICIVPR 2017**)
- Volunteered at the International conference on Informatics, Electronics and vision conference (**ICIEV 2014**)

MEDIA COVERAGE

“Novel Framework For Implementing Design Studies Wins Best Paper At CHI 2020”, Khoury News, Northeastern University (May 28, 2020)

Link: <https://www.khoury.northeastern.edu/general/novel-framework-for-implementing-design-studies-wins-best-paper-at-chi-2020/>

PUBLICATIONS

Journal and Conference Papers

- **Design Study "Lite" Methodology: Expediting Design Studies and Enabling the Synergy of Visualization Pedagogy and Social Good**
Syeda, U.H., Murali, P., Roe, L., Berkey, B. and Borkin, M.A.
[In Proceedings of the **2020 CHI Conference** on Human Factors in Computing Systems (pp. 1-13).
DOI: [10.1145/3313831.3376829](https://doi.org/10.1145/3313831.3376829)]
Video Presentation Link:
<https://www.youtube.com/watch?v=ZbfpJikhvRc&t=11s>
- **Evaluating the Effect of Timeline Shape on Visualization Task Performance**
Di Bartolomeo, S., Pandey, A., Leventidis, A., Saffo, D., Syeda, U.H., Carstensdottir, E., Seif El-Nasr, M., Borkin, M.A. and Dunne, C.
[In Proceedings of the **2020 CHI Conference** on Human Factors in Computing Systems (pp. 1-12).
DOI: [10.1145/3313831.3376237](https://doi.org/10.1145/3313831.3376237)]
- **A State-of-the-Art Survey of Tasks for Tree Design and Evaluation with a Curated Task Dataset**
Pandey, A., Syeda, U.H., Shah, C., Guerra-Gomez, J.A. and Borkin, M.A.
[*Conditionally accepted with major revision at IEEE TVCG (Transactions on Visualization & Computer Graphics)*]

Workshop Papers

- **Towards Identification and Mitigation of Task-Based Challenges in Comparative Visualization Studies**
Pandey, A., Syeda, U. H., & Borkin, M. (2020). Towards Identification and Mitigation of Task-Based Challenges in Comparative Visualization Studies.
- **Visual face scanning and emotion perception analysis between autistic and typically developing children.**
Syeda, U.H., Zafar, Z., Islam, Z.Z., Tazwar, S.M., Rasna, M.J., Kise, K. and Ahad, M.A.R.
[**UbiComp '17 Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing** and Proceedings of the 2017 ACM International Symposium on Wearable Computers (Mental Health: Sensing and Intervention workshop), Pages 844-853, Maui, Hawaii, USA — September 11 - 15, 2017.
DOI: [10.1145/3123024.3125618](https://doi.org/10.1145/3123024.3125618)]

Posters

- **Chester Square Park: A Case Study of Visualization for Social Good using Design Study “Lite” Methodology**
Syeda, U.H., Murali, P. and Borkin, M.A.
[IEEE VIS Conference, held October 2019 in Vancouver, Canada.]