

# Md Dilshadur Rahman

dilshadur@sci.utah.edu | +1 (520) 448-8557 | [LinkedIn](#) | [Website](#) | [Google Scholar](#)

## Research Interests

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- Data Visualization and Visual Computing
- Human-Computer Interaction
- Human-AI Interaction and Collaboration in Data Visualization
- Computing Education

## Education

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### PHD IN COMPUTER SCIENCE

Aug 2022 – Present

*Kahlert School of Computing & Scientific Computing and Imaging Institute  
University of Utah*

Advisor: [Paul Rosen](#)

### MS IN COMPUTER SCIENCE

Aug 2022

*Department of Computer Science and Engineering  
University of South Florida*

Advisor: [Paul Rosen](#)

### BSC IN COMPUTER SCIENCE AND ENGINEERING

Mar 2017

*Department of Computer Science and Engineering  
Khulna University of Engineering and Technology (KUET)*

## Publications

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**Note:** *IEEE TVCG is the top journal for visualization research and IEEE VIS is the top conference for visualization research (~25% acceptance rate)*

### JOURNALS

- Alon Friedman, **Md Dilshadur Rahman**, Ly Dinh, Paul Rosen. *Designing for Engagement: A Comparison of Canvas and a Visual Peer Review Dashboard*, ACM Transactions on Computing Education, 2026. ([Accepted; to appear](#))
- **Md Dilshadur Rahman**, Ghulam Jilani Quadri, Bhavana Doppalapudi, Danielle Szafir, Paul Rosen. *A Qualitative Analysis of Common Practices in Annotations: A Taxonomy and Design Space*. IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG), 2025 (Proc. of IEEE Visualization and Visual Analytics Conference (IEEE VIS 2024)). [22% acceptance rate]  
[10.1109/TVCG.2024.3456359](https://doi.org/10.1109/TVCG.2024.3456359)
- **Md Dilshadur Rahman**, Bhavana Doppalapudi, Ghulam Jilani Quadri, Paul Rosen. *A Survey on Annotations in Information Visualization: Empirical Studies, Applications, and Challenges*. IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG), 2025.

[10.1109/TVCG.2025.3600957](https://doi.org/10.1109/TVCG.2025.3600957) [interactive website](#)

- **Md Dilshadur Rahman**, Ghulam Jilani Quadri, Danielle Szafir, Paul Rosen. *Exploring Annotation Taxonomy in Grouped Bar Charts: A Qualitative Classroom Study*. Information Visualization, 2024.

[10.1177/14738716241270247](https://doi.org/10.1177/14738716241270247) [interactive website](#)

## CONFERENCES AND WORKSHOPS

- **Md Dilshadur Rahman**, Md Rahat-uz-Zaman, Andrew McNutt, Paul Rosen. *AnnoGram: An Annotative Extension of the Grammar of Graphics*. To appear in IEEE VIS, 2025.

[10.48550/arXiv.2507.04236](https://doi.org/10.48550/arXiv.2507.04236) [interactive website](#)

- Bhavana Doppalapudi, **Md Dilshadur Rahman**, Paul Rosen. *Seeing is Believing: The Role of Scatterplots in Recommender System Trust and Decision-Making*. International Symposium on Visual Computing (ISVC), 2024.

[10.1007/978-3-031-77392-1\\_32](https://doi.org/10.1007/978-3-031-77392-1_32).

- Feng Lin, Arran Zeyu Wang, **Md Dilshadur Rahman**, Danielle Szafir, Ghulam Jilani Quadri. *Striking the Right Balance: Systematic Assessment of Evaluation Method Distribution Across Contribution Types*. IEEE evaluation and BEyond - methodological approaches for Visualization (co-located with IEEE VIS), 2024.

[10.1109/BELIV64461.2024.00020](https://doi.org/10.1109/BELIV64461.2024.00020)

- Fateme Rajabiyazdi, Mandy Keck, Christina Stoiber, Jonathan Roberts, Hari Subramonyam, Lily Ge, Magdalena Boucher, Benjamin Bach, Lonni Besancon, Mathis Brossier, Anders Ynnerman, Konrad Schonborn, Alon Friedman, Bo Pei, Ly Dinh, Kevin Hawley, Julia Woodward, Paul Rosen, **Md Dilshadur Rahman**, Yan Chen. *EduVis: 2nd IEEE VIS Workshop on Visualization Education, Literacy, and Activities*. IEEE VIS, 2024.

[EduVis Workshop 2024](#)

- Alon Friedman, Kevin Hawley, Paul Rosen, **Md Dilshadur Rahman**. *Enhancing Student Feedback Using Predictive Models in Visual Literacy Courses*. IEEE Engineering Education Conference (IEEE EDUCON), 2024.

[10.1109/EDUCON60312.2024.10578647](https://doi.org/10.1109/EDUCON60312.2024.10578647)

- **Md Dilshadur Rahman**, Ghulam Jilani Quadri, Paul Rosen. *Exploring Annotation Strategies in Professional Visualizations: Insights from Prominent US News Portals*. IEEE VIS Workshop on Visualization for Communication (VisComm), 2023.

[10.31219/osf.io/fd8zj](https://doi.org/10.31219/osf.io/fd8zj) [VisComm Workshop 2023](#)

- **Md Dilshadur Rahman**, Ghulam Jilani Quadri, Paul Rosen. *A Qualitative Evaluation and Taxonomy of Student Annotations on Bar Charts*. IEEE VIS Workshop on Visualization for Communication (VisComm), 2022.

[10.31219/osf.io/e5vfy](https://doi.org/10.31219/osf.io/e5vfy) [VisComm Workshop 2022](#)

- **Md Dilshadur Rahman**, MAA Hossain, KMA Hasan. *A Framework for Implementing Join Operation Between Multiple MOLAPs*. IEEE International Conference on Electrical, Computer and Communication Engineering (IEEE ECCE), 2019.

[10.1109/ECACE.2019.8679373](https://doi.org/10.1109/ECACE.2019.8679373)

## POSTERS

- **Md Dilshadur Rahman**, Ghulam Jilani Quadri, Paul Rosen. *How Do Professionals Use Annotations in Visualizations?* IEEE VIS Poster Proceedings, 2024.

[IEEE VIS 2024 poster page](#)

- Bhavana Doppalapudi, **Md Dilshadur Rahman**, Paul Rosen. *Seeing is Believing: The Role Recommender*

*System Accuracy Plays on Trust in Scatterplots*. IEEE VIS Poster Proceedings, 2024.

[IEEE VIS 2024 poster page](#)

- **Md Dilshadur Rahman**, Ghulam Jilani Quadri, Paul Rosen. *A Qualitative Evaluation and Taxonomy of Bar Chart Annotations*. IEEE VIS Poster Proceedings, 2022.

[IEEE VIS 2022 poster page](#)

## UNDER REVIEW AND PREPARATION

- **Md Dilshadur Rahman**, Devin Lange, Ghulam Jilani Quadri, Paul Rosen. *Designing Annotations in Visualization: Considerations from Visualization Practitioners and Educators*, Under Review in Eurographics/IEEE VGTC Conference on Visualization, 2026. [interactive website](#)
- Alon Friedman, **Md Dilshadur Rahman**, Ly Dinh, Julia Woodward, Bo Pei, Paul Rosen. *Interfaces for Judgment: Scaffolding Evaluative Reasoning in Interaction*, Under Review in ACM Transactions on Computer-Human Interaction, 2026.
- Alon Friedman, **Md Dilshadur Rahman**, Paul Rosen. *Shaping Evaluative Analysis Through Data Visualization Design: A Study of Visual Nudges*, In preparation, 2026.
- Bhavana Doppalapudi, **Md Dilshadur Rahman**, Paul Rosen. *Influence of Visualizing Class Balance Information on Recommendations' Trust and Decision-Making*, In preparation, 2026.

## Teaching Experience

### DIRECT CLASSROOM TEACHING

### [Past Course Syllabi/Course Delivery Plans](#)

#### GRADUATE INSTRUCTOR

Aug 2021 – May 2022

*University of South Florida, Computer Science & Engineering*

C O U R S E S : IT Computer Networking Lab (Fall 2021)  
Computer Architecture Lab (Spring 2022)

#### INSTRUCTOR OF RECORD

May 2020 – Aug 2020

*University of Arizona, Computer Science*

C O U R S E : Introduction to Computer Programming II (Summer 2020)

**Note:** I started my graduate studies at the University of Arizona and later transferred to the University of South Florida to work with my PhD advisor.

#### LECTURER

Sept 2017 – Aug 2019

*Daffodil International University, Computer Science & Engineering*

C O U R S E S : Discrete Mathematics (Spring 2019, Fall 2018, Spring 2018)  
Data Structures (Spring 2019, Summer 2019, Fall 2018, Summer 2018)  
Programming and Problem Solving (Fall 2018, Fall 2017)  
Systems Analysis and Design (Fall 2018, Fall 2017)  
Operating Systems (Spring 2018)  
Data Communications (Summer 2018, Spring 2018, Fall 2017)

#### LECTURER

May 2017 – Sept 2017

*University of Information Technology and Sciences, Computer Science & Engineering*

C O U R S E S : Microprocessors (Summer 2017)  
 Computer Architecture (Summer 2017)  
 Database System Management (Summer 2017)

## TEACHING SUPPORT ROLES

<b>GRADUATE TEACHING ASSISTANT</b> <i>University of Utah, Kahlert School of Computing</i> C O U R S E : Visualization for Data Science (Fall 2024)	Aug 2024 – Dec 2024
<b>TEACHING MENTEE</b> <i>University of Utah, Kahlert School of Computing</i> C O U R S E : Computational Geometry (Spring 2023)	Jan 2023 – May 2023
<b>GRADUATE TEACHING ASSISTANT</b> <i>University of South Florida, Computer Science &amp; Engineering</i> C O U R S E S : Interactive Data Visualization (Spring 2022) IT Security Systems (Fall 2021)	Aug 2021 – May 2022
<b>GRADUATE TEACHING ASSISTANT</b> <i>University of Arizona, Computer Science</i> C O U R S E S : Data Visualization (Spring 2021) Introduction to Computer Programming II (Summer 2021)	Jan 2021 – Aug 2021

## Honors & Awards

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• Special recognition for outstanding reviews (Posters), ACM CHI	2026
• Special recognition for outstanding reviews (late breaking works), ACM CHI	2025
• Doctoral Colloquium Fellowship, IEEE VIS	2023
• ~\$4,000 in NSF travel funding for Doctoral Colloquium at IEEE VIS	2023
• ~\$500 in travel award from Associated Students of the University of Utah for IEEE VIS	2022
• ~\$1,500 in NSF travel funding for Topological Data Visualization workshop at the University of Iowa	2021
• University Dean’s Award, Khulna University of Engineering and Technology	2016–2017
• University Dean’s Award, Khulna University of Engineering and Technology	2015–2016

## Academic Service and Leadership

### CONFERENCE & WORKSHOP ORGANIZATIONS

• TECHNICAL PROGRAM COMMITTEE MEMBER, IEEE Global Engineering Education Conference (IEEE EDUCON)	2026, 2025
• PROGRAM COMMITTEE MEMBER (SHORT PAPERS), IEEE Visualization and Visual Analytics (IEEE VIS)	2025
• CO-ORGANIZER, IEEE VIS Workshop on Visualization for Communication (VisComm), IEEE VIS	2025

- COMMITTEE MEMBER, Talk Submissions, Outlier Conference 2025
- COMMITTEE MEMBER (JUDGE), Visual Data Storytelling Contest, IEEE Pacific Visualization Conference (PacificVis) 2025
- CO-ORGANIZER, IEEE VIS Workshop on Visualization Education, Literacy, and Activities (EduVis) 2024
- STUDENT VOLUNTEER, IEEE VIS 2024
- STUDENT VOLUNTEER, International Conference of Electrical, Information, and Communication Technology, KUET 2013

## PEER-REVIEWING

- ACM SIGCHI Conference on Human Factors in Computing Systems (ACM CHI) 2026, 2025
- ACM Conference on Intelligent User Interfaces (ACM IUI) (Posters) 2026
- IEEE Visualization and Visual Analytics Conference (IEEE VIS) 2025
- ACM Designing Interactive Systems (ACM DIS) 2025
- Eurographics Conference on Visualization (IEEE/EuroGraphics EuroVis) 2025
- International Journal of Human-Computer Interaction (IJHCI) 2025
- IEEE Pacific Visualization Symposium (IEEE PacificVis) 2025
- ACM Conversational User Interfaces (ACM CUI) 2025
- IEEE Global Engineering Education Conference (IEEE EDUCON) 2026, 2025
- Australian Conference on Human-Computer Interaction (OzCHI) 2025, 2024
- IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG) 2024
- ACM Conference on Computer Supported Cooperative Work and Social Computing (ACM CSCW) 2024
- IEEE VIS Workshop on Visualization Education, Literacy, and Activities (IEEE EduVis) 2024
- International Conference on Electrical, Computer and Communication Engineering (IEEE ECCE) 2024

## OTHER VOLUNTEERING

- STUDENT VOLUNTEER, Prospective CS Graduate Student Visit, University of Utah 2024, 2023
- STUDENT VOLUNTEER, Hack Arizona 2020
- STUDENT VOLUNTEER, Prospective CS Graduate Student Visit, University of Arizona 2020
- STUDENT COORDINATOR, National High School Programming Contest — led the student volunteer team in 2015 and 2016 2016, 2015, 2014
- ORGANIZING COMMITTEE MEMBER, Intra-Department Idea Contest, KUET 2016
- ORGANIZING COMMITTEE MEMBER, Intra-Department Programming Contest, KUET 2016, 2015

## Talks

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- *Design Space and Tooling for Annotations in Visualizations* 2026  
Invited Talk, Oak Ridge National Laboratory, Tennessee, USA

- *A Qualitative Analysis of Common Practices in Annotations: A Taxonomy and Design Space* 2024  
 Conference Talk, IEEE VIS, Virtual
- *A Qualitative Analysis of Common Practices in Annotations: A Taxonomy and Design Space* 2024  
 Seminar Talk, Visualization Seminar, SCI Institute, University of Utah, USA
- *Understanding the Design Space of Annotations in Visualizations* 2023  
 Invited Talk, Doctoral Colloquium, IEEE VIS, Melbourne, Australia
- *How Do People Comprehend Annotations in Visualizations?* 2023  
 Conference Talk, Vis X Vision Workshop, IEEE VIS, Melbourne, Australia
- *Exploring Annotation Strategies in Professional Visualizations: Insights from Prominent US News Portals* 2023  
 Conference Talk, Visualization for Communication Workshop (VisComm), IEEE VIS, Melbourne, Australia
- *A Qualitative Evaluation and Taxonomy of Student Annotations on Bar Charts* 2022  
 Conference Talk, Visualization for Communication Workshop (VisComm), IEEE VIS, Oklahoma City, USA