Tauseef Ibne Mamun
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SUMMARY

Results-driven practitioner with expertise in applied cognitive science, human factors, and explainable AI (XAI), focused on improving safety, usability, and system performance in complex environments. Skilled in AI integration, user behavior analysis, workflow optimization, and usability evaluation across healthcare and autonomous systems.

RECENT EXPERIENCES

Research Fellow Trainee
Vanderbilt University Medical Center | 2025 – Present
- Project Management
- Project focus: Patient Perspective on Artificial Intelligence and Medical Chatbot

Postdoctoral Researcher
Perelman School of Medicine, University of Pennsylvania | 2024 – 2025
- Workflow analysis of OR-to-ICU handoffs
- Facilitating collaboration between the Contextual Inquiry team and the Implementation team
- Mentored students on human-centered design and data collection techniques

AWARDS & CERTIFICATIONS

- Doctoral Finishing Fellowship, Michigan Technological University | 2023
- 3rd Place, Computing[MTU] Poster Session | 2022
- Graduate Certificate, AI in Healthcare, Michigan Technological University | 2021
- Penn Implementation Science Institute, University of Pennsylvania | 2024

POSTGRADUATE EDUCATION

- Ph.D. Applied Cognitive Science & Human Factors

Michigan Technological University, Houghton, MI | 2019 – 2023
Dissertation: Investigating Collaborative Explainable AI (CXAI)/Social Forum in Autonomous Driving
Advisor: Dr. Shane T. Mueller

- M.S. Applied Cognitive Science & Human Factors

Michigan Technological University | 2019 – 2021
Thesis: The Impact of Online Human Collaboration in the Explanation of AI Systems

PRACTICUMS

Defense Advanced Research Projects Agency (DARPA) - XAI Project
Institute for Human and Machine Cognition | 2020
- Advanced explainable AI system development in collaboration with Dr. Robert Hoffman

Rail Crossing Violation Warning Application Project
Center for Human-Centered Computing, Michigan Tech | 2021
- Usability evaluation of rail crossing systems for the Federal Railroad Administration
- Led behavioral analysis of drivers in rail crossings and system usability assessment

TOOLS/METHODS

Technical: R, Python, C, PHP, Java, C++, Ruby, PEBL **(*Git*: GitHub - https://github.com/tm012)**
Research: Cognitive Task Analysis, Usability Evaluation, Contextual Inquiry, Computational Modeling
Development: R libraries for data management, XAI system
Project Management: Scrum, Agile

FEATURED LEADERSHIP ROLES

- Vice President, Bangladeshi Student Association, Michigan Technological University | 2020 – 2021
- Vice President, Ahsanullah University Computer Science & Engineering Society | 2014 – 2015
- President, Notre Dame Nature Study Club (Photography Department) | 2009 – 2010

INTERESTS

Photography | App Development | Video and Photo Editing