

Tauseef Ibne Mamun

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SUMMARY

Doctoral Candidate with specialized training in both *human-computer interaction* and *behavioral psychology*. Have a *strong programming* background. Experience in human factors analysis (*qualitative* and *quantitative*) and executing *usability* studies mainly in software and rail warning systems.

Research Tools/Methods

- Usability Evaluation (in-vehicular warning system, explainable AI system).
- In-field semi-structured user/driver interview.
- The collection of driving behavior data involves utilizing a Driving Simulator and a portable Eye-Tracker.
- Data interpretation using advanced statistical modeling.

EDUCATION

Michigan Technological University | Houghton, MI

Ph.D. Applied Cognitive Science and Human Factors

Fall 2023

Michigan Technological University | Houghton, MI

Artificial Intelligence in Healthcare Certificate

2021

Michigan Technological University | Houghton, MI

MS Applied Cognitive Science and Human Factors

2019 – 2021

Ahsanullah University of Science & Technology | Dhaka, Bangladesh

BS Computer Science & Engineering

2011 – 2015

EXPERIENCES

Michigan Technological University, Cognitive and Learning Sciences | Houghton, MI

Research Assistant

2019 – Present

Tasks:

- Social media data analysis (**qualitative** data) and **human behavior analysis** in autonomous driving while giving user-centric explanations from social media for **human-AI collaboration**.
- Designing **novel explanation methods** (explainable AI - XAI) for the **human-AI team**.
- Developing **computational models** for naturalistic scenarios, e.g., pandemic human travel patterns.
- **Behavioral analysis** of drivers in rail crossings through **statistical models**; **Semi-structured interviews** in healthcare, rail safety, and XAI domains; also determining the **usability** of new systems in rail crossings.
 - ❖ Working/Worked with **Defense Advanced Research Projects Agency** and **Federal Railroad Administration** on different research projects.

Mighty Egg Technologies | Canada/Bangladesh

Programmer Analyst

2015 – 2018

Tasks:

- Database Design & API development.
- Web and Mobile App Development.
- Software deployment in Amazon Web Service, Digital Ocean, Heroku.

Programming Expertise

R, Python, C, C++, Java, PHP, Ruby, PEBL

Git: [GitHub](https://github.com/tm012) (<https://github.com/tm012>)

FEATURED LEADERSHIP ROLES

- Vice President at Ahsanullah University of Science & Technology's Computer Science & Engineering Society 2014 – 2015
- Vice President at Bangladeshi Student Association at Michigan Technological University 2020 – 2021

INTERESTS

[Photography](#) | App Development | Video and Photo Editing