

Zarif Masud

PhD Candidate, Computer Engineering, Toronto Metropolitan University

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github.com/TheZarif

Research Interests

Responsible AI, Algorithmic Bias, Information Retrieval, Migration Studies, Computational Social Science

Education

Toronto Metropolitan University , Toronto, Canada	Sept 2023 – Present
PhD (Computer Engineering)	
<i>Supervisors: Dr. Ebrahim Bagheri & Dr. Syed Ishtiaque Ahmed</i>	
University of Waterloo , Waterloo, Canada	Sept 2017 – Oct 2019
MMath (Computer Science)	
University of Dhaka , Dhaka, Bangladesh	Jan 2012 – Feb 2016
BSc (Software Engineering)	

Experience

Researcher , BARTA – Remote, Dhaka, Bangladesh	Jul 2022 – Present
• Mentor interdisciplinary teams on projects addressing low-resource language processing and responsible AI.	
Software Engineer , Modern Data – Remote, Ontario, Canada	Apr 2023 – Oct 2024
• Developed data engineering and analytics pipelines using Python, SQL, and AWS for enterprise clients.	
Software Development and Design Engineer , YuJa – Toronto, Canada	Sep 2020 – Aug 2022
• Led the <i>Himalayas</i> project to reduce cloud storage costs for YuJa's Enterprise Video Platform by 60–70%.	
Associate Software Engineer , Kaz Software Ltd. – Dhaka, Bangladesh	Jul 2016 – Jul 2017
• Built full-stack information system for NGOs	

Publications

The Role of Artificial Intelligence in Immigration: From Automation to Accountability	Forthcoming
Zarif Masud , Syed Ishtiaque Ahmed, & Ebrahim Bagheri.	
In Ana Beduschi (Ed.), <i>Handbook on Migration and Artificial Intelligence</i> .	
Edward Elgar Publishing (forthcoming).	
How Information Retrieval Systems Construct and Amplify Immigration Narratives	In Press
Zarif Masud , Abhijit Paul, Syed Ishtiaque Ahmed & Ebrahim Bagheri.	
<i>European Conference on Information Retrieval (ECIR 2026), IR-for-Good Track.</i>	
Partisan Perspectives on AI and Immigration: An Analysis of Canadian Parliamentary Discourse (2014–2024)	In Press
Eleyan Sawafta, Zarif Masud , Yasmeen Abu-Laban, Syed Ishtiaque Ahmed, Ebrahim Bagheri, & Geoffrey Rockwell.	
<i>Canadian Ethnic Studies</i> .	
Development of a COVID-19-Related Anti-Asian Tweet Dataset: A Quantitative Study	2023
Mahdi Mokhberi, Zarif Masud , Shebuti Rayana, & Syed Ishtiaque Ahmed.	
<i>JMIR Formative Research</i> , 7(1), e40403.	
doi:10.2196/40403	

S. A. Asif, **Zarif Masud**, R. Easmin, & A. Gias.
International Journal of Advanced Computer Science and Applications, 8(12).

Workshop Papers

Sinophobia on Twitter: Integrating Theory, Humans, and Machines 2021
Ahana Biswas, **Zarif Masud**, Shebuti Rayana, & Syed Ishtiaque Ahmed.
Presented at the ACM CSCW Workshop on Addressing Challenges and Opportunities in Online Extremism Research, October 2021.

Preprints and Under Review

State-of-the-Art Translation of Text-to-Gloss Using mBART: A Case Study of Bangla 2025
Sharif Mohammad Abdullah, Abhijit Paul, **Zarif Masud**, Shebuti Rayana, Abu Nayeem Md Touhidul Alam, Faisal Muhammad Shah, Md Shadab Iftikhar, Md Arid Hasan, & Ahmed Imtiaz Humayun.
Available at: arXiv:2504.02293

Where Journalism Silenced Voices: Indigenous Communities in Bangladeshi Media 2025
Abhijit Paul, Arifur Rahman Khisa, **Zarif Masud**, Sharif Mohammad Abdullah, Arif Kabir, & Shebuti Rayana.
Available at: arXiv:2506.09771

Stemming: The Evolution and Current State with a Focus on Bangla 2025
Abhijit Paul, Md Abu Farin, **Zarif Masud**, Sharif Mohammad Abdullah, Arif Kabir, & Saiful Islam.
Available at: arXiv:2508.15711

Thesis

Switching GAN-Based Image Filters to Improve Perception for Autonomous Driving 2019
Zarif Masud. Master's Thesis, University of Waterloo.
Available at: uwspace.uwaterloo.ca/handle/10012/15099