

# Zarif Masud

PhD Candidate, Computer Engineering, Toronto Metropolitan University

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## Research Interests

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

## Education

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

## Experience

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

## Publications

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

**SAFFRON: A Semi-Automated Framework for Software Requirements Prioritization** 2017  
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 Arif Hasan, & Ahmed Imtiaz Humayun.  
Available at: [arXiv:2504.02293](https://arxiv.org/abs/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](https://arxiv.org/abs/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](https://arxiv.org/abs/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](https://uwspace.uwaterloo.ca/handle/10012/15099)