Rabiul Awal

MAIR LAB at Mila, Montreal https://rabiul.me www.twitter.com/_rabiulawal awalrabiul6@gmail.com

Education

Mila, University of Montreal

PhD. Computer Science, Advisor: Aishwarya Agrawal

Montreal, Quebec 09/2024 –

University of Saskatchewan

MSc. Computer Science (Overall grade 88%)

Saskatoon, Canada 01/2021 – 12/2022

• Advisor: Michael Horsch

• External affiliation: Social AI Studio at SUTD, Advisor: Roy Ka-Wei Lee

• Thesis: Tackling Social Value Tasks with Multilingual NLP [pdf]

Noakhali Science and Technology University

BSc. Computer Science

Noakhali, Bangladesh 03/2014 – 12/2018

Publication

Google Scholar: https://scholar.google.com/citations?user=oOcLfUMAAAAJ&hl=en

- 1. "VisMin: Visual Minimal-Change Understanding." **Rabiul Awal***, Saba Ahmadi*, Le Zhang*, and Aishwarya Agrawal.

 Preprint, In Submission NeurIPS 2024. [pdf] [website]
- 2. "Benchmarking Vision Language Models for Cultural Understanding." Shravan Nayak, Kanishk Jain, **Rabiul Awal**, Siva Reddy, Sjoerd van Steenkiste, Lisa Anne Hendricks, Karolina Stanczak, Aishwarya Agrawal.

In Submission EMNLP, 2024; Computer Vision in the Wild Workshop, CVPR, 2024. [pdf] [website]

- 3. "Contrasting Intra-modal and Ranking Cross-modal Hard Negatives to Enhance Visio-linguistic Compositional Understanding." Le Zhang, **Rabiul Awal**, Aishwarya Agrawal.

 IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR), 2024. [pdf] [code]
- "Investigating Prompting Techniques for Zero- and Few-Shot Visual Question Answering." Rabiul Awal, Le Zhang, Aishwarya Agrawal.
 Prompting in Vision Workshop, CVPR, 2024. (Oral) [pdf] [code]
- 5. "Evaluating GPT-3 Generated Explanations for Hateful Content Moderation." Han Wang, Ming Shan Hee, **Rabiul Awal**, Roy Ka-Wei Lee, and Kenny Tsu Wei Choo. International Joint Conference on Artificial Intelligence (IJCAI), 2023. [pdf] [code]
- 6. "Model-Agnostic Meta-Learning for Multilingual Hate Speech Detection." **Rabiul Awal**, Roy Ka-Wei Lee, Eshaan Tanwar, Tanmay Garg, Tanmoy Chakraborty. IEEE Transactions on Computational Social Systems (TCSS), 2023, ISSN: 2329-924X. [pdf] [code]
- 7. "AngryBERT: Joint Learning Target and Emotion for Hate Speech Detection." **Rabiul Awal**, Rui Cao, Roy Ka-Wei Lee, Sandra Mitrović.
 Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2021. [pdf] [code]

Experience

ServiceNow Research, Multimodal Team Visiting Researcher	Montreal, Canada 07/2024 –
Mila - Quebec AI Institute, University of Montreal Research Intern, Advisor: Aishwarya Agrawal	Montreal, Canada 01/2023 – 08/2024
Mitacs, LST Accelerate Program Machine Learning Intern	Saskatoon, Canada 03/2022 – 09/2022
Social AI Studio, SUTD Student Researcher, Advisor: Roy Ka-Wei Lee	Remote 06/2020 – 11/2022
Goava Sales Intelligence AB Software Engineer	<i>Dhaka, Bangladesh</i> 01/2019 – 12/2020

In-progress research

- Controllable Object-Centric Representations with Language Supervision
- Localized, Action-centric and Spatial-aware Image Editing of Everyday Scenes via VLM Feedback

Awards

Selected for CIFAR DLRL Summer School at Toronto	2024
Selected for Upper Bound Talent Bursary at Alberta (\$1500)	2024
Selected for Alberta University AI Week Talent Bursary (\$1500)	2022
Graduate Teaching Fellowship @UofS, Canada	2021
1st place at NSTU Intra University Programming Contest, Dhaka, Bangladesh	2016
3rd place at CoU Regional Programming Contest (CoURPC), Comilla, Bangladesh	2015

Service & Leadership

Reviewers:	ECCV24, CVPR24	., ACL23, SIGIR22,	AACL22, ICDM21

Organizer: Language Grounding Reading Group at Mila 2023 –

MSc Representative: Computer Science Graduate Council @UofS 2021–2022

Organizer: NLPDhaka Reading Group 01/2021 – 12/2022

President: Computing Club @NSTU, Noakhali, Bangladesh 01/2017 – 06/2018

Skills & Interests

Research: Object-centric Representation Learning, Generative Models, AI in Physical World **Skills**: Python (PyTorch, Tensorflow), Java, C/C++, NoSQL (Elasticsearch), AWS (SageMaker, EC2, Lambda)