Cover Letter

I am Rishabh Maheshwary, currently an AI Resident at Meta/Facebook AI research. I did my Masters by Research in Computer Science and Engineering at International Institute of Information Technology, Hyderabad (IIIT-H). My research interests include Natural Language Processing (NLP), Multi-Modal understanding of vision and language content, Machine Learning and Deep Learning.

At Meta/Facebook AI, my research is focused on designing intelligent systems having joint understanding of vision and language modalities. I am working with <u>Marcus Rohrbach</u>, to design visual question answering models that generate reliable predictions by reading text in images, reasoning over the text and other visual content to help visually impaired people in day to day tasks.

My master's thesis focuses on evaluating the generalization and robustness of various NLP models. My first work [AAAI '21] proposes a new adversarial attack strategy that attacks NLP models in a highly constrained setting. In my second work [AAAI '21], I improved the quality of existing adversarial attack methods using masked language models. I extended my research by another work [EMNLP '21] which proposes a query efficient attack mechanism. Besides, I worked on the problem of evaluating Math Word Problem solvers for their robustness and natural language understanding ability [Findings of EMNLP '21] and [NAACL' 22].

Previously, I was also a research intern at <u>Verisk AI</u> where I worked on the task of information extraction from form-like documents. The work is currently under submission in ACL Rolling Review (ARR). Apart from this, I also did <u>Google Summer Of Code</u> Internship in <u>AOSSIE</u> organization and worked as a Software Developer Intern at <u>MSB Docs</u>. Besides, I am an active contributor to the <u>TextAttack</u> and <u>MMF</u> frameworks. I am proficient with Python and its full ML stack, and have hands-on experience with deep learning frameworks like Pytorch and Tensorflow as well.

Relevant Links GitHub | GitLab | LinkedIn | Google Scholar | Website

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