Rishabh Maheshwary

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Work Experience

- **Facebook AI Research** - *AI Resident* — **California, U.S.**
  My research is currently focused on designing intelligent systems having joint understanding of vision and language modalities. — *Nov 2021 – Dec 2022*

- **Verisk AI** – *Research Intern* — **Hyderabad, India**
  I worked on joint language and vision understanding of multimodal content and semantic understanding of natural language documents. — *May 2021 – Oct 2021*

- **MSB Docs** – *Software Developer Intern* — **Chandigarh, India**
  I improved the existing e-signing application by adding new features that track changes made to the document and allows bulk signing of multiple documents. — *Jan 2019 – June 2019*

- **Google Summer of Code** – *Software Developer Intern* — **Remote**
  I developed an application that allows users to report calamities on google maps so that nearby users can view, share, and communicate with the people involved in the crisis. — *Apr 2018 – Sept 2018*

- **Design Innovation Center, UIET** – *Research Intern* — **Chandigarh, India**
  I worked on detecting hate speech using natural language processing. — *Jul 2017 – Dec 2017*

Publications

1. Improving Selective Visual Question Answering. Under submission In the *Proceedings of the **IEEE/CVF Conference on Computer Vision and Pattern Recognition** (**CVPR, 2023**)* Vancouver, Canada

2. Vivek Kumar, **Rishabh Maheshwary**, Vikram Pudi. Practice Makes a Solver Perfect: Data Augmentation methods for Math Word Problem Sovers. In the *Proceedings of **North American Chapter of the Association for Computational Linguistics** (**NAACL 2022**)*, Seattle, Washington.

3. **Rishabh Maheshwary***, Saket Maheshwary*, Vikram Pudi. A Strong Baseline for Query Efficient Attacks in a Black Box Setting. In the *Proceedings of **Empirical Methods in Natural Language Processing** (**EMNLP**) **2021***, Punta Cana, Dominican Republic.

4. **Rishabh Maheshwary***, Vivek Kumar*, Vikram Pudi. Adversarial Examples for Evaluating Math Word Problem Solvers. In the *Findings of ACL*: **Empirical Methods in Natural Language Processing** (**EMNLP**) **2021**, Punta Cana, Dominican Republic.

5. **Rishabh Maheshwary**, Saket Maheshwary, Vikram Pudi. Generating Natural Language Attacks in a Hard Label Black Box Setting. In the *Proceedings of **Association for the Advancement of Artificial Intelligence** (**AAAI**) **2021***, Vancouver, Canada.

6. **Rishabh Maheshwary**, Saket Maheshwary, Vikram Pudi. A Context Aware Approach for Generating Natural Language Attacks. In the *Proceedings of **Association for the Advancement of Artificial Intelligence** (**AAAI**) **2021***, Vancouver, Canada.

* Equal Contribution

Education

- **International Institute of Information Technology, Hyderabad** — **Hyderabad, India**
  MS by Research in Computer Science and Engineering | CGPA: 8.7/10 — *2019 – 2021*
- **University Institute of Engineering and Technology, Panjab University** — **Chandigarh, India**
  BTech in Computer Science and Engineering | CGPA: 8.4/10 — *2015 – 2019*
- **Spring Dale Senior School** — **Amritsar, India**
  Senior Secondary Education — *2015*
- **Saint Francis School** — **Amritsar, India**
  Secondary Education — *2013*

Major Projects

- **Information Extraction from Form like Documents** *2021*
  The aim is to design an intelligent reading system that is expected to respond to ad-hoc requests for information, expressed in natural language questions by human users.
- **Generating Adversarial Attacks on Natural Language Processing Models** *2019*
  The aim is to evlauate the robustness and generalization of text classification, entailment, question answering and language modelling systems.
- **MultiHop Question Answering** *2019*
  The aim is to answer questions which require reasoning over multiple supporting documents.
- **Deep Learning for detecting Hate Speech Tweets** *2018*
  The aim is to identify abusive language, flag offensive content using natural language processing.

Awards and Achievements

- **Google Summer of Code** and **Google CodeIn** mentor. *2018*
- Ranked $1st$ out of 100+ teams in **CODETRIX** (National level coding contest). *2017*
- Ranked $3rd$ out of 100+ teams in **CODE-IT** (National level coding contest). *2016*

Programming Languages and Technologies

- Python, PyTorch, C++, C, Shell, Git
- Machine Learning, Deep learning, NLP, Multimodal vision & language