Saurabh JAIN
NLP Researcher

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⚙ RESEARCH INTERESTS

o Natural Language Processing, Cross-lingual NLP, Dialogue Systems, Dialogue State Tracking, Response Generation

🎓 EDUCATION

July 2020 Dec 2021 (1.5 years)	**The National University of Singapore** Master of Computing - Dissertation Track, Artificial Intelligence Advisor : Assoc Prof. Min-Yen Kan Thesis : Comparative Response Generation Thesis Grade : Complete & Satisfactory Course Work GPA : 4.42/5
July 2011 May 2015 (4 years)	**Malaviya National Institute of Technology, Jaipur** B.Tech, Computer Science & Engineering Advisor : Assoc Prof. Pilli Emmanuel Shubhakar Course Work GPA : 8.47/10

📖 DISSERTATION

2022 **Comparative Response Generation** link | National University of Singapore

The goal of this work was to generate a comparative text expressing both positive and negative opinions, regarding a product, from e-commerce reviews. A dataset was created from scratch and a model was built on top of BERT architecture to generate a comparative text.

📖 PUBLICATIONS

2022 Comparative Snippet Generation. **Saurabh Jain**, Yisong Miao, Min-Yen Kan. *ECNLP 2022 (Workshop at ACL 2022)*. (Accepted, link)

2021 MRCBert : A Machine Reading Comprehension Approach for Unsupervised Summarization. **Saurabh Jain**, Guokai Tang, Lim Sze Chi. *Arxiv*. (Course Work Paper, link)

💼 PROFESSIONAL EXPERIENCE

May 2022 Ongoing	**Research Scientist, RAKUTEN, Singapore** o Works in Rakuten's research wing, Rakuten Institute of Technology. o Current focus is on multi-lingual Machine Translation. `Machine Translation` `Multi-lingual MT`
Feb, 2017 July, 2020	**AI Developer, ACTIVE INTELLIGENCE, Bengaluru** o Active Intelligence develops conversational systems for banks. o Worked as an NLP engineer in its research team. o Contributed in multiple NLP projects : Intent Classification, Named Entity Recognition, Context Change Detection, Fragment Detection, etc. `NLP` `Deep Learning` `Pytorch` `Python`
June 2015 Jan, 2017	**Member of Technical Staff, BLUESTACKS, Gurugram** o Developed File Manager and Location service provider for the Bluestacks App Player. o Developed applications to maintain communication between Bluestacks and host machine. `Java`

📓 GRADUATE COURSES

Neural Networks And Deep Learning II	Knowledge Discovery And Data Mining
AI Planning And Decision Making	Natural Language Processing
Neural Networks And Deep Learning	

🖥 INDUSTRIAL PROJECTS

CONTEXT CHANGE DETECTION | Active Intelligence
<div align="right">2019-2020</div>

Aim of this project was to detect change in context during conversation. We modeled this problem as a classification task and used an attention-based model trained on 7M occurrences of banking conversations. Our model received around 89% prediction accuracy.

PyTorch   Spacy   Attention Network

INTENT CLASSIFICATION | Active Intelligence
<div align="right">2018-2019</div>

We used hierarchical attention network to classify input sentences in predefined classes. Model was trained on 200k instances and output 92% classification accuracy.

PyTorch   Spacy

NAMED ENTITY RECOGNITION | Active Intelligence
<div align="right">2018</div>

Aim of this project was to recognize entities like money, account and phone number, pin, otp, etc., during conversations. We used Bi-LSTM network and trained on a dataset prepared in-house and received 92% accuracy.

PyTorch   Spacy

☰ SKILLS

Programming	Python
Frameworks	Pytorch, HuggingFace
Areas	Natural Language Processing, Deep Learning
Libraries	Spacy, NLTK, Numpy, Sklearn, Pandas

🏆 HONORS & AWARDS

2019	Honored on 72nd Independence Day of India by Divine Light Trust for the Blind for helping foundation.
2018	Member of team which won The Best Deep Learning innovation award at TechXLR8 Asia award 2018

🌐 LANGUAGES

English   ●●●●●
Hindi   ●●●●●

❝ REFERENCES

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