# Saurabh Jain

**NLP Researcher** 

in linkedin.com/in/saurabhsaurabh 🦸 github.com/saurabhhssaurabh

@ saurabhjain@u.nus.edu



# 🗱 Research Interests

- Conversational Al
- > Natural Language Understanding
- > Text Generation and Language Modeling
- > Applied NLP and Deep Learning

# **EDUCATION**

2020-2022 National University of Singapore

Master of Computing - Dissertation Track, Artificial Intelligence

2011-2015 Malaviya National Institute of Technology, Jaipur

B.Tech, Computer Science & Engineering

## PROFESSIONAL EXPERIENCE

### July, 2020 Feb, 2017

#### Al Developer, Active Intelligence, Bengaluru

- > Active Intelligence develops conversational system for banking operations.
- > Worked as an NLP engineer in the research team.
- > I contributed in multiple NLP projects to build a conversational system from scratch.

NLP Deep Learning Pytorch Tensorflow Python

### Jan, 2017 June 2015

#### Member of Technical Staff, BLUESTACKS, Gurugram

- > Bluestacks is an app player which runs Android applications on Windows operating system.
- > I single handily developed File Manager and Location service provider for the app player.
- > My responsibilities also include development of applications to maintain communication between Bluestacks and host machine.

Java



## DISSERTATION

#### **COMPARATIVE RESPONSE GENERATION** | National University of Singapore

2021

☑ link

Goal of this work is to generate a comparative text expressing both positive and negative opinions regarding a product present in e-commerce reviews. We created dataset from scratch and built a model on top of BERT architecture to generate comparative text.

Python PyTorch BERT HuggingFace

# Publications

- 2022 Comparative Snippet Generation. Saurabh Jain, Yisong Miao, Min-Yen Kan. ECNLP 2022 (Workshop at ACL 2022). (Accepted, link )
- MRCBert: A Machine Reading Comprehension Approach for Unsupervised Summarization. Saurabh Jain, 2021 Guokai Tang, Lim Sze Chi. *Arxiv*. (Course Work Paper, 🗹 link )

# 🗐 Graduate Courses

Neural Networks And Deep Learning II (A+) Al Planning And Decision Making (A) Dissertation (Complete And Satisfactory)

Knowledge Discovery And Data Mining (A+) Natural Language Processing (A-) Neural Networks And Deep Learning (B+)

## PROJECTS

#### **CONTEXT CHANGE DETECTION** | Active Intelligence

Aim of this project was to detect change in context during conversation. Training dataset contained 7M occurrences of banking conversations developed in-house. We modeled this problem as a classification task and used an attention-based architecture to encode text. We received around 89% prediction accuracy.

PyTorch Spacy Attention Network

## **Intent Classification** | Active Intelligence

2018-2019

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

2018

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



Python **Programming** 

Frameworks Pytorch, Tensorflow

> Natural Language Processing, Deep Learning, Machine Learning Areas

Libraries Spacy, NLTK, Numpy, Sklearn, Pandas

# THONORS & AWARDS

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



English Hindi

# **66** REFERENCES

### Dr. Min-Yen Kan

Assoc. Professor, SoC, NUS

kanmy@comp.nus.edu.sg

+65 6516 1885

### Dr. Pilli Emmanuel Shubhakar

Assoc. Professor, Dept. of CSE, MNIT, JAIPUR

@ espilli.cse@mnit.ac.in

+91 01412713376