Sandeep **Kumar**

DOB - 27 Jan 1998 (Age - 20yrs)

(+91) 70-5412-6863 | sandepkr@iitk.ac.in | krsandeep98 | krsandeep98

Education

IIT (Indian Institute of Technology) Kanpur *Jul. 2015 - Jul. 2019 (exp)*

B.S. in Mathematics and Scientific Computing (8.64/10)

Experience

Learning Semantic Sentence Embeddings using Pair-wise Discriminator

Conference Paper at COLING 2018

- Proposed a novel method for obtaining sentence-level embeddings by solving the paraphrase generation task
- Introduced a sequential pair-wise discriminator to obtain semantic and relevant sentence embeddings
- Obtained state-of-the-art results on the task of paraphrase generation and sentiment analysis

Video Completion with Deep Learning *Dec 2017 - Present*

Research internship at NVIDIA Graphics Bangalore (*This work is under review*)

- Built a convolutional generative adversarial network for this task
- Used multiple discriminators to ensure the consistency of video
- Tested our model on standard datasets like YFCC100M and YouTube-8M

Deep Learning Techniques For Question Generation (Prof. Vinay P Namboodiri) *Jun 2017 - May 2018*

Undergraduate Research, (*This work is under review*)

- Developed a Context model using different contexts such as Part of Speech-Tags, Places and Exemplar Images
- Designed a Encoder network with help of CNN based Image model and Context model
- Implemented a Decoder network with the help of LSTM based language model for natural question generation

Bayesian Techniques For Question Generation (Prof. Vinay P Namboodiri) *Jan 2018 - May 2018*

Undergraduate Research, (*This work is under review*)

- Developed a bayesian architecture to procure embeddings for cues such as place, tag and caption
- Used a bayesian fusion module to obtain joint embeddings for different cues
- Proposed a bayesian moderator module to gauge the importance of different fused embeddings

Mitigating Annotation Costs in legal domain *Oct 2017 - Jan 2018*

Course Project (*This work is under review*)

- Designed a novel algorithm to annotate legal documents in an information retrieval setup
- Got rid of human effort at test time without significantly affecting the performance
- Used tf-idf and Doc2Vec representation of documents and queries

Honors & Awards

2015 Among top 5% in JEE Advanced 2015 and top 0.1% in JEE Mains 2015.
2015 Secured 96.4 % in Higher Secondary Examination
2014 Scholar Kishore Vaigyanik Protsahan Yojana (KVPY) Scholarship
2014 Merit Certificate Indian National Chemistry Olympiad
2012 Merit Certificate National Standard Examination in Junior Science (NSEJS)
2013 Secured 95 % in Secondary Examination
2011 Scholar National Talent Search Examination (NTSE) Scholarship
2011 1st Place International Olympiad of Science (IOS)

Relevant Courses

Machine learning Techniques	Data Structures & Algorithms	Linear Algebra
Applied Stochastic Processes	Probability & Statistics	Mathematical Modelling

Technical Skills

Languages: Python, C++, C, Lua, MATLAB, R **Tools** : LaTeX, MELD, GIT **DL Platforms** : Torch,TensorFlow