

ABHISHEK SHARMA

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EDUCATION

Indian Institute of Technology (BHU), Varanasi Integrated Dual Degree (B.Tech, M.Tech) in Mathematics and Computing	<i>July 2016 - Present</i> CPI: 9.19/10
Ahlcon Public School, Mayur Vihar, Delhi Class XII Board Examination	<i>2016</i> Percentage: 97.20

PUBLICATIONS

Abhishek Sharma, Ganesh Katrapati and Dipti Misra Sharma. IIT(BHU)–IIITH at CoNLL SIGMORPHON 2018 Shared Task on Universal Morphological Reinflection. In *Proceedings of the CoNLL SIGMORPHON 2018 Shared Task: Universal Morphological Reinflection*, Brussels. Association for Computational Linguistics <http://aclweb.org/anthology/K18-3013>

INTERNSHIPS

IBM Research AI <i>Conversational Question Answering</i>	May 2019 - August 2019
<ul style="list-style-type: none">• Worked on ShARC – a conversational question answering task wherein the query posed by the user can be underspecified and the system must first ask the user follow up questions.• Demonstrated and fixed exploits in the current dataset and proposed a system based on BERT which outperforms the current state of the art model.	
IIIT Hyderabad <i>Morphological Inflection</i>	May 2018 - July 2018
<ul style="list-style-type: none">• Participated in Task 1 of CoNLL–SIGMORPHON 2018 Shared Task: Universal Morphological Reinflection.• Designed a novel neural network architecture - LSTM based Sequence to Sequence model with multiple encoders and Pointer Generator network for the task.• Our best performing system stood 4th among 28 systems, 3rd among 23 systems and 4th among 23 systems for the low, medium and high resource setting respectively.	

ACADEMIC ACHIEVEMENTS

- Awarded with a scholarship of Rs. 50,000 to attend EMNLP 2018.
- Secured All India Rank 1449 in JEE Advanced 2016 among 200,000 candidates.
- Secured All India Rank 308 in JEE Mains 2016 among 1.2 million candidates.
- Awarded with KVPY scholarship by Govt. of India for securing All India Rank 653 among 100,000 students.
- Awarded with NTS scholarship by Govt. of India for being in top 800 students from all over India.

RELEVANT COURSES UNDERTAKEN

Natural Language Processing ¹	-	Introduction to Machine Translation	A
Linear Algebra	A	Probability and Statistics	A-
Fundamentals of Linguistics	A	Computer Programming	A

¹Ongoing

PROJECTS

Reinforcement Learning in Non-stationary environments

Aug 2018 - Present

- Proposed an algorithm “UCCRL-KD with restarts” for non stationary environments with continuous state space and gave upper bound on its regret. Currently, working on finding the lower bound.
- Additionally developed an algorithm based on learning and maintaining multiple partial models of the environments.

Hypernym Discovery

Oct 2017 - Jan 2018

- Participated in Shared Task 9: Hypernym Discovery of SemEval-2018.
- Submitted system based on iterative extraction approach in *Probase: A Probabilistic Taxonomy for Text Understanding* and beat the baseline models in most of the subtasks.
- Implemented and experimented with the approach of specifically learning word embeddings for hypernym discovery mentioned in *Learning Term Embeddings for Hypernymy Identification*.

Automatic Essay Grader

Aug 2017 - Oct 2017

- Worked on the task of building system which could automatically grade essays.
- Implemented LSTM based neural network architecture based on the proposed model in *Automatic Text Scoring Using Neural Networks..*

TECHNICAL SKILLS

Languages	Python, Java, C, C++
Technologies	PyTorch, AllenNLP, scikit-learn, Git, L ^A T _E X, Linux
Areas of Interest	Natural Language Processing, Reinforcement Learning, Deep Learning

OTHER ACHIEVEMENTS

- Won a bronze medal in Star Cluster Identifier, an astrophysics based event involving data analysis in 7th Inter IIT Tech Meet.
- Stood 6th in Optimal Bidding, a stochastic dynamic optimisation event in 6th Inter IIT Tech Meet.
- Stood 1st among 560 participants in Codefest Linguipedia 2018, an online Natural Language Processing hackathon on sentimental analysis of tweets towards products.
- Stood 5th among 468 participants in Codefest Linguipedia 2017, an online Natural Language Processing hackathon on hate speech detection in tweets.

VOLUNTEER EXPERIENCE

- Leading a team of nine student executive members of Mathematics and Computing Society as the Vice-President.
- Successfully organised workshops, hackathons and a summer school on Machine Learning and Data Science as the Joint Secretary of Club of Programmers – the programming club of the institute.