Abhishek Sharma

abhisheksharma0318@gmail.com ◇ github.com/abhishek0318/ ◇ abhishek-sharma.in

EDUCATION

Indian Institute of Technology (BHU), Varanasi *July 2016 - June 2021 (Expected)*
Bachelor and Master of Technology in ***Mathematics and Computing*** (Honours) CPI: 9.17/10
Relevant Courses – Artificial Intelligence, Data Structures, Algorithms, Operating Systems, Distributed Computing, Natural Language Processing, Machine Translation, Linguistics, Probability, Statistics, Linear Algebra, Optimisation.

EXPERIENCE

Uber June 2020 - August 2020
Research Science Intern *Bangalore, India*

- Developed a **machine learning system** for identifying problematic road segments from the map issue tickets filed by the drivers.
- Improved the top-k accuracy by over 20% over the existing heuristic method by using **Learning to Rank** machine learning technique and experimenting with **new features**.

IBM Research AI May 2019 - August 2019
Research Intern *Delhi, India*

- Developed a novel **deep learning** model based on **BERT** and **CopyNet** for ShARC – a **conversational question answering** task and beat the previous state of the art model.
- Demonstrated that the existing models exploit patterns in the dataset and augmented the dataset to reduce the occurrence of these patterns.

IIIT Hyderabad May 2018 - July 2018
Research Intern *Hyderabad, India*

- Developed a novel **deep learning** architecture based on **LSTM** and **Pointer Generator Network** for **morphological inflection**.
- Beat the baselines by large margins and stood second overall in Task 1 of CoNLL SIGMORPHON Shared Task on Universal Morphological Reinflection.

PUBLICATIONS

1. Nikhil Verma, Abhishek Sharma, Dhiraj Madan, Danish Contractor, Harshit Kumar and Sachindra Joshi. **Neural Conversational QA: Learning to Reason vs Exploiting Patterns.** *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*.
2. Abhishek Sharma, Ganesh Katrapati and Dipti Misra Sharma. **IIT(BHU)–IIITH at CoNLL SIGMORPHON 2018 Shared Task on Universal Morphological Reinflection.** *Proceedings of the CoNLL–SIGMORPHON 2018 Shared Task: Universal Morphological Reinflection*.

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**.
- Found the **upper bound on the regret** of the proposed algorithm and the **lower bound on the regret** of any algorithm in this setting.

TECHNICAL SKILLS

Languages Python, C++
Technologies PyTorch, Python Data Science Stack, AllenNLP, SQL, Hive, PySpark