Debjit Paul

Research Interest

Natural Language Processing, Deep Learning, Natural Language Understanding, Commonsense Reasoning, Knowledge-based Reasoning, Interpretable and Explainable Machine Learning

Education

2018- PhD. Student Computational Linguistics Group and the interdisciplinary research training

Current) group AIPHES Computer Science, Heidelberg University, Heidelberg, Germany.

Thesis Social Commonsense Reasoning with Structured and Unstructured Knowledge

Supervisor Prof.Dr.Anette Frank, Chair of Computational Linguistics Group

2014–2017 MSc. Computer Science, Saarland University, Saarbrücken, Germany, Grade-1.9 on German

Scale.

Thesis Multitasking Learning With Unreliable Labels

Supervisor Prof.Dr.Dietrich Klakow, Head of Language Spoken System Group

2010–2014 **B.Tech in Computer Science**, *GuruNanak Institute of Technology*, Kolkata,India, *Grade-8.73/10*.

Thesis Improved Algorithm for Human and non Human Object Detection

Experience

Jan.2018- Intern, Amplexor International, Germany.

 ${\sf March} \ \, \circ \ \, \textbf{Department:} \ \, {\sf Content \ Intelligence \ Team}$

o Task - To set up a Neural Machine Translation(NMT) (various language pairs) from scratch. Developing pipeline which contains steps such as data acquisition, data preparation, training NMT.

Oct.2016- Research Assistant, Saarland University, Saarland, Germany.

Nov.2016 • **Department:** Foundation of Exact Algorithm

o Programming tasks for the organization of the programming challenge PACE.

o The goal is to generate instances to be used in the challenge.

Nov.2015– **Research Assistant**, *Saarland University*, Saarland, Germany.

Feb.2016 • **Department**: Machine Learning Group

o Crafted Algorithms using Python to filter data (Arxiv dataset) collection results.

o Concept utilized are Natural Language Processing, Prepossessing text data.

Publication

- Debjit Paul, and Anette Frank "Learning Contextualized Inference Rules for Story Generation", Under Review
- Debjit Paul, and Anette Frank "Hypothetical Reasoning meets Abductive Commonsense Reasoning", Under Review
- o **Debjit Paul**, and Anette Frank "Social Commonsense Reasoning with Multi-Head Knowledge Attention", Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing: Findings (EMNLP 2020)

- o **Debjit Paul**, Maria Becker, Juri Opitz, Graeme Hrist and Anette Frank "Argumentative Relation Classification with Background Knowledge", [Nominated as Best Paper] Proceedings of the 8th International Conference on Computational Models of Argument (COMMA 2020), September 2020, vol. 326, Frontiers in Artificial Intelligence and Applications, pp. 319–330, Computational Models of Argument.
- o **Debjit Paul**, Anette Frank "Ranking and Selecting Multi-Hop Knowledge Paths to Better Predict Human Needs", Proceedings of the Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2019), Minneapolis, Minnesota, USA, vol. 1, pp. 3671–3681.
- Debjit Paul, Mittul Singh, Michael A. Hedderich, Dietrich Klakow "Handling Noisy Labels for Robustly Learning from Self-Training Data for Low-Resource Sequence Labeling", Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Student Research Workshop (NAACL-SRW 2019), Minneapolis, Minnesota, USA, pp. 29–34
- Anup Kumar Thander, Goutam Mandal, Debjit Paul "Numerical Comparison of multi-step iterative methods for finding roots of non-linear equations, International Journal of Mathematics Trends and Technology", Volume4 Issue 8-September 2013 [ISSN: 2231-5373]

Reviewing

- 2021 North American Chapter of the Association for Computational Linguistics (NAACL)
- 2021 European Chapter of the Association for Computational Linguistics (EACL)
- 2020 Empirical Methods in Natural Language Processing (EMNLP)
- 2020 Joint Conference on Lexical and Computational Semantics (*SEM)
- 2019 German Conference on Artificial Intelligence (KI)
- 2019 COmmonsense INference in Natural Language Processing (COIN)

Technical skills

Language Python, R, Java

Tools Tensorflow, pyTorch, AllenNLP, scikit-learn, gensim, NLTK, Dynet, Standford CoreNLP, Theano, Matlab

Achievements

- o Poster Presentation: "Graph-based Multi-Hop Commonsense Knowledge", EurNLP 2019, London, UK
- o Winner of HQ Hackathon 2017, at Trivago, Dusseldorf, Germany

Languages

English Proficient

German Basic

Bengali & Native

Hindi

Additional

- o GitHub: https://github.com/debjitpaul
- o Google Scholar: https://scholar.google.de/citations?user=jJ8MjZMAAAAJ&hl=en&oi=ao
- o Linkedin: https://www.linkedin.com/in/debjit-paul/

References

Available upon request