Debjit Paul

Postdoctoral Researcher
EPFL
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`https://debjitpaul.github.io/`
Google Scholar Profile

AREAS OF INTEREST	Natural Language Understanding, Commonsense Reasoning, Knowledge-based Reasoning, Generative AI, Interpretable and Explainable Machine Learning, Human-AI Interaction

EDUCATION

Ph.D. in Computational Linguistics — 2018 - 2022
Heidelberg University
Thesis: "Social Commonsense Reasoning with Structured Knowledge in Text"
Advisor: Prof. Anette Frank
Grade: Summa cum laude

M.Sc. in Computer Science — 2014 - 2017
Saarland University
Thesis: "Multitasking Learning With Unreliable Labels"
Advisor: Prof. Dietrich Klakow

B.Tech in Computer Science — 2010 - 2014
GuruNanak Institute of Technology
Thesis: "Improved Algorithm for Human and non-Human Object Detection"

WORK EXPERIENCE

Postdoctoral Researcher — April 2022 - Present
School of Computer and Communication Sciences at EPFL
Host: Prof. Boi Faltings, Prof. Robert West
Topic: Neuro-Symbolic AI
Funding: EU-Funded Horizon 2020 project

Research Intern — Winter 2021
Amazon Alexa AI Team, Berlin
Topic: Continual Learning for NLP

SELECTED PUBLICATIONS

Flows: Building Blocks of Reasoning and Collaborating AI arXiv 2023.
Martin Josifoski, Lars Klein, Maxime Peyrard, Yifei Li, Saibo Geng, Julian Paul Schnitzler, Yuxing Yao, Jiheng Wei, **Debjit Paul**, Robert West

REFINER: Reasoning Feedback on Intermediate Representations arXiv 2023.
Debjit Paul, Mete Ismayilzada, Maxime Peyrard, Beatriz Borges, Antoine Bosselut, Robert West, Boi Faltings

Language Model Decoding as Likelihood–Utility Alignment
Findings of the Association for Computational Linguistics: EACL 2023
Martin Josifoski, Maxime Peyrard, Frano Rajič, Jiheng Wei, **Debjit Paul**, Valentin Hartmann, Barun Patra, Vishrav Chaudhary, Emre Kiciman, Boi Faltings and Robert West

COINS: Dynamically Generating COntextualized Inference Rules for Narrative Story Completion
Association for Computational Linguistics (ACL 2021)
Debjit Paul, Anette Frank

Generating Hypothetical Events for Abductive Inference
Proceedings of the Tenth Joint Conference on Lexical and Computational Semantics (*Sem 2021)
Debjit Paul, Anette Frank

CO-NNECT: A Framework for Revealing Commonsense Knowledge Paths as Explicitations of Implicit Knowledge in Texts
Proceedings of the 14th International Conference on Computational Semantics
Maria Becker, Katharina Korfhage, **Debjit Paul**, Anette Frank

Social Commonsense Reasoning with Multi-Head Knowledge Attention
Findings of the Association for Computational Linguistics: EMNLP 2020
Debjit Paul, Anette Frank

Argumentative Relation Classification with Background Knowledge
Proceedings of the 8th International Conference on Computational Models of Argument (COMMA 2020), Frontiers in Artificial Intelligence and Applications, Computational Models of Argument.
Debjit Paul, Maria Becker, Juri Opitz, Graeme Hrist and Anette Frank

Explaining Arguments with Background Knowledge
Datenbank-Spektrum 20, 131–141 (2020)
Maria Becker, Ioana Hulpuş, Juri Opitz, **Debjit Paul**, Jonathan Kobbe, Heiner Stuckenschmidt, Anette Frank

Ranking and Selecting Multi-Hop Knowledge Paths to Better Predict Human Needs
North American Chapter of the Association for Computational Linguistics (NAACL 2019)
Debjit Paul, Anette Frank

SERVICE	Area Chair: EMNLP 2023 Program Committee: TACL 2023-2025, ACL 2023 & 2022, NAACL 2021, EMNLP 2022, 2021 & 2020, EACL 2023 & 2021, ARR, *SEM 2020 & 2021, CoNLL 2021, KI 2019, COIN 2019
HONORS AND AWARDS	Nominated as Best Student paper at COMMA 2020 Facebook Travel Award for EurNLP 2019, London,UK Winner of HQ Hackathon 2017, at Trivago, Dusseldorf, Germany

MENTORING

MS Researchers

Mete Ismayilzada, Topic: Commonsense Reasoning	Sept 2022 - June 2023
Rochat Mathieu Louis, Topic: Graph Continual Learning	Sept 2022 - April 2023
Gabriele D'Angeli, Topic: Reinforcement Learning for NLP	August 2023 - Present
Briki Farah, Topic: Reinforcement Learning for NLP	August 2023 - Present

EPFL Summer Intern

Omar El Malki, Topic: Reinforcement Learning for NLP	June 2022 - Feb 2023
Luca Mouchel, Topic: Logical Fallacy	August 2023 - Present

TECHNOLOGY SKILLS	*Programming Languages:* Python, Java, C. *Machine learning and NLP tools:* PyTorch, Tensorflow, JAX, spaCy, AllenNLP, Transformers library.
LANGUAGES	*Bengali*: Native language *English*: Full professional proficiency *German*: Elementary proficiency
REFERENCES	*Prof. Anette Frank* Email: frank@cl.uni-heidelberg.de *Prof. Boi Faltings* Email: boi.faltings@epfl.ch *Prof. Robert West* Email: robert.west@epfl.ch *Prof. Antoine Bosselut* Email: antoine.bosselut@epfl.ch