

# Dipendra Yadav

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[in](#) dipen-yadav | [G](#) dipen-yadav | [S](#) google scholar

Rostock, Germany

## Objective

PhD candidate in Machine Learning Research with a background in Natural Language Processing (NLP) and software engineering, currently researching the use of neuro-symbolic reasoning to enhance the explainability in large language models.

## Education

- University of Greifswald** January 2023 - Present  
*PhD Candidate*  
Greifswald, Germany
  - The doctoral research focuses on explainability methods for machine learning models (with a focus on large language models).
- University of Rostock** October 2017 - July 2020  
*MSc in Electrical Engineering*  
Rostock, Germany
  - German Grade: **1.5** (very good, where 1.0 is best and 5.0 is worst)
  - Concentration: Natural language processing, Machine Learning.
- Visvesvaraya Technological University** 2011 - 2015  
*Bachelor in Electrical and Electronics Engineering*  
Bengaluru, India
  - Grade: **76.53%** (First Class with Distinction, **2nd rank** in the class of 63 students)

## Professional Experience

- University of Rostock** January 2022 - September 2022  
*Research Assistant*  
Rostock, Germany
  - Research in Neural Density Estimation as part of Neuronal extraction of information, structures and symmetries in images (NEISS) project [[Poster](#)].
- PlanetAI GmbH** May 2020 - January 2022  
*Software Engineer*  
Rostock, Germany
  - Developed frontend and backend for Intelligent Document Analysis (IDA) software.
  - Built CI/CD pipelines on DroneCI [[reference letter](#)].
- Market Logic Software** November 2019 - April 2020  
*Student Assistant Data Scientist*  
Berlin, Germany
  - Assisted in the research and development of NLP tools for analyzing Natural Language Data to support business insights [[reference letter](#)].
- PlanetAI GmbH** April 2019 - March 2020  
*Research Intern and Master Thesis in NLP*  
Rostock, Germany
  - Master Thesis:** Researched state-of-the-art methods for transfer learning for Deep NLP systems on rarely annotated languages (Hindi and Nepali).
  - Internship:** Investigated and enhanced BLSTM-CNN-CRF model performance for NER through multitask learning [[recommendation letter](#)].

## Publications

- [1] Yadav, Dipendra, et al. (2024). **Prompt Engineering for Nepali Named Entity Recognition: A Case Study for Low-Resource Languages**(In-Submission)
- [2] Yadav, Dipendra, et al. (2024). **Cross-Lingual Named Entity Recognition for Low-Resource Languages: A Hindi-Nepali Case Study Using Multilingual BERT Models** MRL@EMNLP2024: Proceedings of the 4th Workshop on Multi-lingual Representation Learning at EMNLP 2024. Association for Computational Linguistics (ACL).
- [3] Yadav, Dipendra, et. al (2024). **A Comparative Analysis on Machine Learning Techniques for Research Metadata: the ARDUOUS Case Study**. INFORMATIK 2024 Gesellschaft für Informatik e.V.
- [4] Yadav, Dipendra. (2023). **Evaluating Dangerous Capabilities of Large Language Models: An Examination of Situational Awareness**. DC@KI2023: Proceedings of Doctoral Consortium at KI 2023.
- [5] Yadav, Dipendra, et al. (2020). **Exploring Transfer Learning for Deep NLP Systems on Rarely Annotated Languages**. arXiv preprint 2410.12879.

## Teaching Assistant

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- **Mathematics of Artificial Intelligence**  
Winter Semester 2024/25, University of Greifswald

## Relevant Activities

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- Selected by the German Centre for Research and Innovation for a two-week start-up tandem program hosted at IISc Bengaluru, India.
- Organized the 8th International Workshop on [Annotation of user Data for Ubiquitous Systems](#) at Informatik Festival 2024, Germany.
- Participated in the EuADS Summer School – Generative AI 2024, Luxembourg.
- Attended Oxford Machine Learning Summer School (OxML) 2023.
- Selected for the fully-funded Swiss AI Safety Summer Camp 2023.
- Attended the AI Safety fundamentals alignment course by AI Safety Sweden.

## Honours and Awards

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- Special Award for Digital Innovation and Process Optimization (2018).
- 3rd Place in the Graduate and Researcher category at the Idea Competition (2018).

## Skills

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- **Programming Languages:** Python, Java, Bash, Git.
- **Frameworks:** TensorFlow, Pytorch, Scikit-learn, Docker.
- **Languages:** German (B2), English (C1), Hindi, Nepali, Mithali (All Native).

## References

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- **Prof. Dr.-Ing Kristina Yordanova**  
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- **Dr. rer. nat. Tobias Strauß**  
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