RUCHIRA DHAR

Al and NLP Researcher

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Summary

PhD Researcher with three years of industry experience in natural language processing and generative AI. My research focuses on developing robust and interpretable evaluation frameworks for assessing state-of-the-art AI systems across various domains. With work featured at top AI conferences like ICML, EMNLP, and NeurIPS, I am eager to contribute to advancing evaluation methodologies that ensure the reliability and effectiveness of AI systems.

Experience

Flowrite Oy Helsinki, Finland

Computational Linguist

02/2022 - 06/2023

A startup focused on enhancing writing productivity through Generative Al.

- Developed evaluation frameworks to assess LLM generations, focusing on robustness, coherence, and usability of generations.
- Transformed academic research into creating innovative prompt engineering methods to align LLM generations with user needs.
- · Conducted quantitative & qualitative analysis of user data to evaluate AI system performance and alignment.

Cerence Inc Pune, India

Speech Expert 05/2021 - 02/2022

A leading provider of voice recognition technology.

- Developed scalable frameworks for NLP-based voice assistants in 20+ languages.
- Built evaluation systems to monitor performance across to enhance alignment with linguistic and cultural variations.

Kore Al Hyderabad, India

Associate Engineer 01/2021 - 05/2021

A company focused on AI solutions for enterprise communication.

- Developed NLP-driven chatbot solutions tailored to client needs.
- Improved user experience and optimised workflows across multiple projects and business requirements.

Education

University of Copenhagen

Copenhagen, Denmark

PhD in Computer Science

09/2023 - Present

The English and Foreign Languages University

Hyderabad, India

Masters in Linguistics

08/2018 - 06/2020

- Top 1% of class with highest grade in year (Grade O and GPA 10/10).
- · Highest grade in courses on Mathematical Linguistics, Computational Semantics & Natural Language Processing with Python.

Shri Shikshayatan College, University of Calcutta

Kolkāta, India

BA in English

06/2015 - 06/2018

- Top 1 % of class with Honours and Certificate of Academic Excellence.
- Minor in History and Political Science.

RESEARCH

Unireps Workshop, Neural Information Processing Systems (NeurIPS), Vancouver, Canada, 2024

Investigating the role of modality and training objective on representational alignment between transformers and the brain

Published work in evaluation of representations in LLMs & Human Brains.

Available here: https://tinyurl.com/4czxpyyt

RESEARCH

Empirical Methods in Natural Language Processing (EMNLP), Florida, USA, 2024

Defining Knowledge: Bridging Epistemology and Large Language Models

Published work in defining and evaluating epistemological notions for LLMs.

Available here: https://tinyurl.com/y3kddjjy

LLM & Cognition Workshop, International Conference on Machine Learning (ICML), Vienna, Austria, 2024

From Words to Worlds: Compositionality For Cognitive Architectures

Presented work on evaluating compositional reasoning in LLMs.

Available here: https://tinyurl.com/5n6p3rzh

INVITED TALKS

International Symposium in Al & Neuroscience, Florence, Italy, 2024

The Completeness Problem- Beyond Human Metrics in Assessing Capabilities of Cognitive Systems

Agency and Intentions in Al Workshop (AIAI), Göttingen, Germany, 2024

Compositionality in Language Models- A Perspective in Changing Interpretations and Methods

CERTIFICATIONS

Generative Al Fundamentals — Google Cloud Skills Boost, 2023

EXTERNAL AFFILIATIONS

Cohere For Al

Community Lead 09/2024 - Present

Leading outreach efforts at leading Al non-profit outfit and organizing monthly sessions with 200+ participants to foster research connections in Al community.

Centre of Philosophy of Al

Fellow 09/2023 - Present

Researching fundamental properties of Al systems, including their social and economic impact, as part of the leading research centre in Denmark

Languages

English Native ●●●●● Hindi Native ●●●●● Bangla Native ●●●●●