# Ruixiang Cui

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#### **EXPERTISE**

Large language models (training, instruction tuning, prompt engineering, large-scale data generation, processing and evaluation), deep learning-based NLP frameworks (PyTorch, TensorFlow), cloud computing (Azure, GCP, AWS), SQL databases, semantic parsing

#### **EDUCATION**

# University of Copenhagen

2021-2024

PhD in Computer Science, Natural Language Processing

Advisors: Daniel Hershcovich, Anders Søgaard

Thesis title: Evaluating Language Models - From Multilingual Compositional Semantic Parsing to Human-level Complex Reasoning

Stanford University 2023

Visiting Researcher, Stanford NLP Group Topic: Mechanistic interpretability of LLMs

# University of Oxford

2022

Machine Learning Summer School

Topic: Multimodal machine learning applications

# University of Copenhagen

2018-2020

MSc in IT and Cognition

Key courses: Computational Cognitive Science, Vision and Image Processing, NLP

## Jilin University; Complutense University of Madrid

2014-2018

BA in Hispanic Philology, minor in Computational Linguistics

#### **EXPERIENCE**

# Microsoft Research

01/2023-06/2023

Research Intern

- · Spearheaded AGIEval, a canonical benchmark for assessing complex reasoning capabilities of LLMs, adopted by more than 20 major LLM companies. Designed and executed data management pipelines, encompassing data collection, refinement, and analysis.
- · Co-devised a human workflow platform with LLM for generating consistent long-form content such as talks and presentations in professional situations, offering a customizable and scalable solution.

# University of Copenhagen

09/2021-12/2022

Teaching Assistant

· Taught and mentored 80 students across three courses: Natural Language Processing (MSc), Machine Learning (BSc) and Database Design (BSc).

## Industrial and Commercial Bank of China

06/2016-09/2016

Data Analyst Intern

· Crafted and deployed an information extraction system for letters of credit transactions. This system significantly streamlined data processing and increased efficiency by 100% in financial operations.

SKILLS

**Programming Languages** Frameworks and Tools

Python, Java, SQL, SPARQL, LaTeX, Visual Basic, Perl PvTorch, TensorFlow, Keras, SciPv, Scikit-learn, NumPv, Pandas,

Matplotlib, NLTK, OpenCV, Git, grep, Excel, Tableau Mandarin Chinese (Native), English (Full professional), Spanish (Professional), Danish (Limited working),

Portuguese (Limited working), Italian (Elementary)

## HONORS & AWARDS

Languages

Excellent Internship Award Excellent Student Leader & Second Prize Scholarship First Prize Scholarship

Microsoft Research 2023 Jilin University 2016 Jilin University 2015

# SELECTED PUBLICATIONS (CITATIONS: 355; H-INDEX: 7)

- [1] Wanjun Zhong\*, Ruixiang Cui\*, Yiduo Guo, Yaobo Liang, Shuai Lu, Yanlin Wang, Amin Saied, Weizhu Chen, Nan Duan. 2024. AGIEval: A Human-Centric Benchmark for Evaluating Foundation Models. Findings of North American Chapter of the Association for Computational Linguistics (NAACL).
- [2] Yong Cao, Yova Kementchedjhieva, Ruixiang Cui, Antonia Karamolegkou, Li Zhou, Megan Dare, Lucia Donatelli, Daniel Hershcovich. 2024. Cultural Adaptation of Recipes. Transactions of the Association for Computational Linguistics (TACL).
- [3] Ruixiang Cui, Seolhwa Lee, Daniel Hershcovich, Anders Søgaard. 2023. What does the Failure to Reason with "Respectively" in Zero/Few-Shot Settings Tell Us about Language Models?. Annual Meeting of the Association for Computational Linguistics (ACL).
- [4] Nikolaus Schrack, Ruixiang Cui, Hugo A. López, Daniel Hershcovich. 2022. Can AMR Assist Legal and Logical Reasoning?. Findings of Conference on Empirical Methods in Natural Language Processing (EMNLP).
- [5] Ruixiang Cui, Rahul Aralikatte, Heather Lent, Daniel Hershcovich. 2022. Compositional Generalization in Multilingual Semantic Parsing over Wikidata. Transactions of the Association for Computational Linguistics (TACL, oral presentation at EMNLP).
- [6] Ruixiang Cui, Daniel Hershcovich, Anders Søgaard. 2022. Generalized Quantifiers as a Source of Error in Multilingual NLU Benchmarks. North American Chapter of the Association for Computational Linguistics (NAACL, oral).
- [7] Stephanie Brandl, Ruixiang Cui, Anders Søgaard. 2022. How Conservative are Language Models? Adapting to the Introduction of Gender-Neutral Pronouns. North American Chapter of the Association for Computational Linguistics (NAACL).
- [8] Daniel Hershcovich, Stella Frank, Heather Lent, Miryam de Lhoneux, Mostafa Abdou, Stephanie Brandl, Emanuele Bugliarello, Laura Cabello Piqueras, Ilias Chalkidis, Ruixiang Cui, Constanza Fierro, Katerina Margatina, Phillip Rust, Anders Søgaard. 2022. Challenges and Strategies in Cross-Cultural NLP. Annual Meeting of the Association for Computational Linguistics (ACL).

## **SERVICE**

Reviewer: NeurIPS, ACL, EMNLP, NAACL, CoNNL, \*SEM, AmericasNLP

# **HOBBIES**