

ERCONG NIE

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## 🎓 EDUCATION

**Ludwig-Maximilians-University of Munich (LMU)**, Munich, Germany 2022.09 – present

*PhD student* at Center for Information and Language Processing (CIS)

Research fields: *Cross-lingual transfer learning, historical language processing, prompt-based learning*

Supervised by PD. Dr. Helmut Schmid at Schuetze NLP Lab led by Prof. Hinrich Schütze

**Ludwig-Maximilians-University of Munich (LMU)**, Munich, Germany 2020.04 – 2022.08

*M.Sc.* in Computational Linguistics (Major) and Computer Science (Minor) Grade: 1.3/1.0

Selected courses: *Python Applications for Computational Linguistics, Neural representation learning, Machine translation, Conversational AI, Deep learning for NLP, Machine learning, Data mining, Big data etc.*

Master Thesis: *Zero-Shot Learning Transfer on Low-Resource Languages by Cross-Lingual Retrieval*  
(Examiner: Prof. Hinrich Schütze)

**Shanghai Jiao Tong University (SJTU)**, Shanghai, China 2015.09 – 2019.06

*B.A.* in German Studies (Major) and Finance (Minor) Grade: 88/100

Selected courses: *General Linguistics, German Lexicology, Neurolinguistics, Mathematics, Statistics etc.*

Bachelor Thesis: *A corpus-based study of metaphors in the football language* (Supervisor: Prof. H. Zhang)

**Ruprecht-Karls-University Heidelberg (RKU)**, Heidelberg, Germany 2018.03 – 2018.08

*Exchange Student* in Comparative German Studies

Study courses: *Language typology, Psycholinguistics, Second Language Acquisition etc.*

## 👨‍🏫 TEACHING

**Module P10 for Computational Linguistics (Bachelor)**, LMU Munich WS 23-24

*Tutor* Statistical Methods in NLP (Tutorial)

**Advanced Module for Computational Linguistics (Master)**, LMU Munich WS 23-24, WS22-23

*Tutor* Deep Learning and Natural Language Processing (Exercise Session)

- Prepared NLP-relevant python exercises for the lab.
- Discussed with professor and partner on the course structure and organization.
- Evaluated lab assignments and answered questions regarding exercises as well as lectures from students.

**Machine Learning Track for Statistics and Data Science (Master)**, LMU Munich WS 23-24, SS 23

*Supervisor* Applied Deep Learning

- Supervised students to conduct deep learning projects.

**Seminar Module Lexicon, Syntax, Semantics II**, LMU Munich SS 23

*Tutor* Human-Centric Natural Language Processing (Seminar)

- Scheduled the seminar plan and prepared papers for student presentation with the professor.
- Gave presentations on advanced topics of human-centric NLP.
- Gave feedback on students' seminar reports.

- Summarized the theoretical contents of the lecture in the field of lexicon, automaton
- Taught basic python programming skills and prepared Python exercises for students.
- Instructed students to implement the algorithms learned from the lecture with Python.
- Built and maintained the course web page: <https://www.cip.ifi.lmu.de/~nie/basismodul>.

## EXPERIENCE

### **Computational Linguistic Internship at Infineon, Munich, Germany** 2021.08 – 2022.03

*Working Student* Member of Semantic Web Group, Supply Chain Innovation Team

- Performed ontology modeling and linguistic analysis of ontologies and knowledge graphs.
- Developed a document retrieval system for internal use by employing the language model sentence BERT and the ontology digital reference.

### **Computational Linguistic Research Assistant at CIS, Munich, Germany** 2021.04 – 2021.07

*Student Research Assistant* DFG Project ReMLAV: Relational Machine Learning for Argument Validation

- Worked on the construction of a corpus for claim detection.
- Annotated argument sentences by claim target, claim stance and claim type for argument classification tasks.

## PUBLICATIONS

\* Equal contribution, † Corresponding author.

- **Ercong Nie**, Helmut Schmid, and Hinrich Schütze. “Unleashing the Multilingual Encoder Potential: Boosting Zero-Shot Performance via Probability Calibration.” *Findings of EMNLP 2023 (To appear)*.
- Xiaoqian Li, **Ercong Nie** and Sheng Liang “Crosslingual Retrieval Augmented In-context Learning for Bangla.” *EMNLP 2023 Workshop on Bangla Language Processing (BLP 2023) (To appear)*.
- Zheyu Zhang\*, Han Yang\*, Bolei Ma\*, David Rügamer and **Ercong Nie**†. “Baby’s CoThought: Leveraging Large Language Models for Enhanced Reasoning in Compact Models.” *EMNLP 2023 Workshop CoNLL-CMCL Shared Task BabyLM Challenge (To appear)*.
- Bolei Ma\*, **Ercong Nie**\*, Helmut Schmid, and Hinrich Schütze. “Is Prompt-Based Finetuning Always Better than Vanilla Finetuning? Insights from Cross-Lingual Language Understanding.” *KONVENS 2023*.
- **Ercong Nie**, Helmut Schmid, and Hinrich Schütze. “Cross-Lingual Constituency Parsing for Middle High German: A Delexicalized Approach.” *RANLP 2023 Workshop on Ancient Language Processing (ALP 2023)*.
- **Ercong Nie**\*, Sheng Liang\*, Helmut Schmid, and Hinrich Schütze. “Cross-Lingual Retrieval Augmented Prompt for Low-Resource Languages.” *Findings of ACL 2023*.
- Ziegler, Ingo, Bolei Ma, **Ercong Nie**, Bernd Bischl, David Rügamer, Benjamin Schubert, and Emilio Dorigatti. “What cleaves? Is proteasomal cleavage prediction reaching a ceiling?.” In *NeurIPS 2022 Workshop on Learning Meaningful Representations of Life*.

## SKILLS

- Programming Languages: Python (Good), C++ (Basic), familiar with common NLP and machine learning packages, such as Numpy, Scipy, Scikit-Learn, PyTorch, Keras, NLTK, etc.
- Natural Languages: Chinese Mandarin (Native), English (Fluent), German (Fluent)
- Tools:  $\text{\LaTeX}$ , HTML, Linux, Jupyter Notebook, Git, etc.

## HONORS AND CERTIFICATES

<i>Outstanding Graduate of Shanghai Jiao Tong University</i>	2019
<i>Academic Excellence Scholarship of Shanghai Jiao Tong University</i>	2016, 2017, 2018
<i>Merit Student of Shanghai Jiao Tong University</i>	2016, 2018

## **i** OTHERS

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Invited talk at 31st Student Conference on Computational Linguistics (TaCoS): *Fine-Tuned Sentence Transformer Model for Question Answering Task* 2022.05