# Kunhang Li

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#### **EDUCATION**

#### Department of Computer Science, The University of Tokyo

Tokyo, Japan 10/2023 – Present

Master in Computer Science

• Research Area: Natural Language Processing, Multimodality

• Supervisor: Yusuke Miyao

• Scholarship: UTokyo Fellowship (10/2023 – 9/2025)

• Courses: Reinforcement Learning, Applied Computer Graphics

### College of Engineering, Peking University

Beijing, China 9/2019 - 7/2023

Bachelor in Robotics

• Research Area: Natural Language Processing, Multimodality

• Supervisor: Yansong Feng

• Courses: Introduction to Robotics, Machine Learning, Artificial Intelligence, Mathematical Foundations of the Information Age, Foundations of Natural Language Processing

#### **PROJECTS**

## Digital Observatory

4/2024 - Present

The University of Tokyo | Technical Staff

Supervisor: Yusuke Miyao, Professor, Graduate School of Information Science and Technology

• Abstract: Utilizing LLMs and other language technologies to predict the impact that news might have on the global supply chain.

### Development of a multilingual CCG Parser

10/2023 - 3/2024

The University of Tokyo | Technical Staff

Supervisor: Yusuke Miyao, Professor, Graduate School of Information Science and Technology

- Abstract: As the only contributor, I implemented a high-performance multilingual CCG parser for both CCGBank and multilingual CCG treebanks from the lab.
- Highlights: Multilingual CCG supertagging and A\* supertag-factored parsing; Treebanks processing, training and evaluation.
- Accomplishments: The project was published (link) with an easy-to-use interface.

### Development of a CCG Parser

7/2022 - 9/2022

The University of Tokyo | Research Intern

Supervisor: Yusuke Miyao, Professor, Graduate School of Information Science and Technology

- Abstract: As the only contributor, I implemented a CCG parser comparable to SOTA ones from scratch, which paves the path to various kinds of phrase structure grammars (especially HPSG).
- Highlights: Hierarchical data class design; Neural CCG supertagging and parsing; Supertag-factored beam search and  $A^*$  search.
- Accomplishments: The project was made public on GitHub (link) with an easy-to-use interface.

### Semantic Analysis of Chinese Sports Instructions

7/2021 - 12/2022

Peking University | Research Assistant

Supervisor: Yansong Feng, Associate Professor, Wangxuan Institute of Computer Technology

- Abstract: This project aims to efficiently extract semantic information of bodily spatial states and changes from Chinese sports instructions.
- Highlights: Corpus construction of Chinese sports intructions; Annotation rule design (spatial semantic dependencies in predicate-argument structures); Annotation; Prediction system implementation (preprocessing, training, prediction and evaluation); Visualisation web service maintenance (built on brat).

# **PUBLICATIONS**

• Motion Generation from Fine-grained Textual Descriptions.

Kunhang Li, Yansong Feng.

The Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING), 2024.

# EXPERIENCE

• Teaching: TA for Foundations of Natural Language Processing (Peking University, April 2023)

## SKILLS

- Programming and Technologies: Python (PyTorch), C, C++, C#, MATLAB, HTML, LATEX, Markdown
- Natural Languages: Chinese (native), English (proficient), Japanese (basic), German (intermediate in reading)