# Kunhang Li

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## EDUCATION

## Department of Computer Science, The University of Tokyo

Tokyo, Japan

Master in Computer Science

10/2023 - Present

• Research Area: Natural Language Processing, Multimodality

• Supervisor: Yusuke Miyao

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

# 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, Bionic Robotics, Machine Learning, Artificial Intelligence, Mathematical Foundations of the Information Age, Foundations of Natural Language Processing

#### **PROJECTS**

## 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 Internship

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**

**Kunhang Li**, Yansong Feng. Motion Generation from Fine-grained Textual Descriptions (LREC-COLING 2024).

• Text2motion is to generate motion sequences from given textual descriptions. We build the first large-scale language-motion dataset with fine-grained textual descriptions, and design a new text2motion model making full use of fine-grained textual information.

## EXPERIENCE

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

# SKILLS

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