

# Sijia Ge

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## EDUCATION

<b>University of Colorado-Boulder, CO, USA</b>	Aug.2021-Now
M.S Computational Linguistics(CLASIC)	4.0/4.0 (Expected graduation:May.2023)
<b>Nanjing Normal University, Jiangsu, China</b>	Sep.2016-Jun.2019
M.A Linguistics&Applied Linguistics (with Concentration on Computational Linguistics)	86.3/100(overall)
<b>Shanxi University, Shanxi, China</b>	Sep.2012-Jul.2016
B.A Chinese Language and Literature	85.8/100(overall)

## RELATED SKILLS

**Technical:** Python, Keras, Pytorch, Java, NLTK, Scikit-learn, Transformers, Tensorflow, SQL, Django, Flask, HTML, Axure RP, JavaScript, JQuery, Linux, Shell, SPSS, LaTeX, Git, PlantUML, Neo4j, Tableau

**Language:** Mandarin Chinese(Native), English(Fluent)

## PROFESSIONAL EXPERIENCE

### Student Research Assistant

*CLEAR lab, CU-Boulder*

*May.2022-present*

1.compute the similarity of pair of events which mapped to the wikidata use the rule-based and machine learning algorithms (a small track of AIDA project funded by DARPA)

2.update the online annotation tool with more efficient and better user experience interface with front-end skills and Flask.

### Beijing Lingsail Tech Co., Ltd.

*Product Manager Intern, Beijing*

*Mar.2021-June.2021*

Mainly focus on a term extraction tool whose target users are the students and teachers who use CAT software.

Design the prototype of the new products including basic UI, function and interaction;Schedule the overall progress of development as well as promotion model;Test the function of new products with black box testing

## COURSE&RESEARCH PROJECTS

### Viz-Wiz Visual Question& Answer Challenge: Answer Visual Questions from People Who Are Blind

*Course project, The University of Colorado-Boulder CSCI 5922 Deep Learning*

- Adopted the feature map on the next to last layer of VGG-16 as the image features
- Adopted the the hidden state of the last layer of BERT as question features
- classify the concatenated feature into first 50000 frequent answers and got the score of 0.47

### E-commerce online shopping website

*Course group final project, The University of Colorado-Boulder CSCI 5448 Object-oriented design&analysis*

- Simulate the fundamental function for a online shopping website
- Built on Django 2.0, adopted JQuery&JavaScript to interact with the users at the front end
- Adopted SQLite as the model and built-in admin module as the backstage manage system

### Music Store Simulation

*Course group project, The University of Colorado-Boulder CSCI 5448 Object-oriented design&analysis*

- Simulate the operation for a music store, including order new items, sell items, buy items and so on
- Apply design pattern into the project, such as strategy, decorator, observer, singleton and etc.
- Based on Java and utilize Junit for unit test

### Patronizing and Condescending Language Detection

*Course group project, The University of Colorado-Boulder CSCI 5832&SemEval 2022 shared task 4(practice phase)*

- Applied XLNet as a pre-trained model for the binary classification task and reached a f-score of 0.53, ranked #7 for the practice phase, which was higher than the Roberta baseline.
- Also applied Glove embeddings as features for the support machine vector model to reach a f-score of 0.38

### Named Entity Recognition for Gene text

Course group project, The University of Colorado-Boulder CSCI 5832

- Implemented gene named entity recognition with crf++, crfsuite, Bi-LSTM-CRF and pre-trained language model(BioBERT), and reached entity based F-score of 62%, 62%, 77%, 85% respectively.
- utilized comet\_ml as a tool for training visualization

#### **A Joint Model of Automatic Sentence Segmentation and Lexical Analysis for Ancient Chinese**

Research Assistant, Nanjing Normal University

Sep.2018-Mar.2019

- Established a seq2seq model for sentence segmentation and lexical analysis based on Bi-LSTM-CRF and TensorFlow
- Transferred two separated tasks into one task, the F1-score of sentence segmentation, word segmentation, and POS reached 78.95, 85.73% and 72.65% separately, with an average increase of 3.5%, 0.18%, and 0.35% respectively

#### **Chinese Abstract Meaning Representation Corpus**

Team Member, Nanjing Normal University

Jul.2017-Mar.2018

- Counted the distribution of semantic roles for the predicate in 5000 sentences automatically
- Compared the data with semantic roles labeling based on Chinese PropBank to verify the efficiency of AMR for solving the conflicts between core and non-core roles, representation of multi-functional roles, and solution to dropped roles

#### **The Platform for monitoring the popularity of Mandarin Chinese**

Team Member, The Education Department of Jiangsu Province

Dec.2016-Dec.2017

- Developed a web platform collaboratively based on spring framework for recording the nationwide result of the survey for Mandarin Chinese popularity
- Implemented the import and export data of Excel and audio files

### **SELECTED PUBLICATION**

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#### **Paper**

Ning Cheng, Bin Li, Liming Xiao, Changwei Xu, **Sijia Ge**, Xingyue Hao, Minxuan Feng. Integration of Automatic Sentence Segmentation and Lexical Analysis of Ancient Chinese based on BiLSTM-CRF Model. *Proceedings of LT4HALA 2020 - 1st Workshop on Language Technologies for Historical and Ancient Languages*. Marseille, France, 2020:52-58.

Li Song, Yuan Wen, **Sijia Ge**, Bin Li, Junsheng Zhou, Weiguang Qu and Nianwen Xue. An Easier and Efficient Framework to Annotate Semantic Roles: Evidence from the Chinese AMR Corpus. *The 13th Workshop on Asian Language Resources on LREC 2018*. Miyazaki, Japan, May 07, 2018:29-35.

#### **Patent**

A Method and System of Automatic Lexical Analysis for Ancient Chinese. (the 3<sup>rd</sup> applicant). 2019. No.CN201910085019.3

### **VOLUNTEER EXPERIENCE**

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**Volunteer for the China National Conference on Computational Linguistics 2017(CCL 2017)**

**Oct.2017**

**Volunteer for the Museum of Shanxi Province**

**Nov.2012-May.2013**

**Incoming international peer mentor at CU-Boulder**

**2022-2023 academic year**

**Incoming graduate school peer mentor at CU-Boulder**

**2022-2023 academic year**