# Yupei Wang

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## **EDUCATION**

## Beijing Jiaotong University

 $09\ 2018 - 06\ 2022$ 

B.Sc. - Information and Computational Science - GPA: 3.69/4.00 - Rank: 10/73

Haidian, Beijing

I was qualified for a postgraduate recommendation in Sep. 2021, and will join the **Institute of Chinese Information Processing Z** at **Beijing Normal University** in Sep. 2022.

## COURSEWORK

- Mathematical Analysis
- Probability/Statistics
- ODE & PDE
- Optimization

- Linear & Abstract Algebra
- Operations Research
- Information and Coding Theory
- Graph theory & Topology

• Numerical Computing

# PROJECTS / RESEARCH

# **L2C-rater** ☑ | RA at ICIP, BNU | Automated Essay Scoring with LTP & Sklearn

 $01\ 2020-08\ 2021$ 

- Paper : A Prompt-independent and Interpretable Automated Essay Scoring Method for Chinese Second Language Writing. The source code of the paper is publicly available .
- This work aims to propose a general automated essay scoring method for Chinese second language (L2) writing. The paper proposes a method that integrates multi-dimensional language complexity features, text error features and text representations. Learning-based algorithms, such as regression, tree-based methods and neural nets, are used to learn to grade essays. This method not only has high consistency with the behavior of human raters, but also has strong interpretability, which can serve further research on writing feedback.

In Nov. 2021, I gave an **oral report** on this work at the 20th China National Conference on Computational Linguistics (**CCL 2021**);

- L2C-rater online demo
- Recently working on modeling **prompt adherence** of language test essays.

# NEA-torch ☑ | Side project | Automated Essay Scoring with Torch

 $12\ 2021$ 

• In 2016, a research group from the NUS released an neural model called Neural Essay Assessor 🗗 (NEA) to automaticly score English test essays.

Based on *Python 2* and *Keras 1.x*, NEA is now out of date. Therefore, I **rewrote** NEA with *python 3* and *PyTorch* in Dec. 2021. Preliminary tests show that the rewritten model behaves **as good as the** the original model.

#### Honors and Awards

1st Prize in Beijing District in CUMCM Contest

10/09/2020 - 13/09/2020

Finalist in MCM / ICM Contest

05/02/2021 - 09/02/2021

### LANGUAGE

English | CET-6: 615

#### TECHNICAL SKILLS

#### languages and Tools:

- \* Proficient: Python (Numpy, Pandas, SKLearn, Torch mainly) and LATEX;
- \* Novice: C++ and MySQL;

#### Domain Related:

- \* Understand the fundamentals of common neural architectures in NLP, such as CNN, RNN, including pre-trained models like BERT;
- \* Know how to implement the above architectures with *PyTorch*;