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** , **Beijing Normal University** in Sep. 2022.

COURSEWORK

- Mathematical Analysis
- Linear & Abstract Algebra
- Probability/Statistics
- Operations Research
- Numerical Computing
- ODE & PDE
- Information and Coding Theory
- Optimization
- Graph theory & Topology

PROJECTS / RESEARCH

L2C-rater | Machine learning with sklearn & torch | RA in ICIP, BNU **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
- Working on modeling **prompt adherence** of language test essays.

NEA-torch | Deep learning with PyTorch | Side project **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  Based on *Python 2* and *Keras 1.x*, NEA is now out of date.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*;