何震宇 Zhenyu He

Tele: 19150262160 | zhenyu.h@outlook.com
WeChat: hzysweixin
Blog: https://zhenyuhe00.github.io

Education

University of Electronic Science and Technology of China Sep 2019 - Jun 2023

School of Software Engineering Chengdu, China

Major: Software Engineering (Elite Program)

GPA: 3.99/4 , 90+/100 IELTS: 7

Courses: CS224n, CS224w, CS231n, CS229, Information theory and Entropy, Calculus I/II(93/96), Linear Algebra(93), Program Design and Algorithm Foundation I/II(100/100), Probability and Mathematical Statistics(93), Physics(94), Discrete Mathematics(92)

Peking University Sep 2023 - Jul 2027

School of Artificial Intelligence

Publication

Rumor Detection on Social Media with Event Augmentations , SIGIR 2021

Zhenyu He*, Ce Li*, Fan Zhou, Yi Yang

Preprint

Two-Stage Neural Contextual Bandits for Personalised News Recommendation

Mengyan Zhang, Thanh Nguyen-Tang, Fangzhao Wu, **Zhenyu He**, Xing Xie, Cheng Soon Ong

Uni-Fold MuSSe: De Novo Protein Complex Prediction with Protein Language Models

Jinhua Zhu*, **Zhenyu He***, Ziyao Li, Guolin Ke, Linfeng Zhang

Research Experience

Research Intern (remote), Peking University Jan 2023 - Present

Advisor: Prof. Di He; Mentor: Shengjie Luo Beijing, China

1. Deep learning for predicting atomic energies / forces / positions.

Research Intern, DP Technology Jun 2022 - Jan 2023

Mentor: Guolin Ke Beijing, China

- Applied NLP techniques (pre-training) to protein modeling.

Research Intern, Machine Learning Group, MSRA Mar 2022 - Jun 2022

Mentor: Lijun Wu Beijing, China

- Worked on Drug AI
- Introduce prompt tuning to molecule transformer.
- Introduce PUlearning techniques such as Mixup, label flip to Drug-Drug interactions.

KEG, Tsinghua University Jul 2021 - Jan 2022

Advisor: Jie Tang; Mentor: Xiao Liu Beijing, China

- Worked closely with senior Ruixiao Yang on a project called "Language Model as Wikipedia". We aimed to make Language Model as knowledgeable as Wikipedia and tried many techniques. We tested performance on downstream Question-Context retrieval task and found that the top 2 retrieval accuracy of our radical method can be comparable to the top 1 retrieval accuracy of DPR. More details about this project can be found in our meeting document.
- Worked closely with postgraduate Xiao Liu on a project called "Never Ending Language World Knowledge Learning System". We aim to build a life-long learning system acquiring world knowledge. This project is a relatively huge project and more people are participating in it. As for my part, which is the extractor part, I reimplement the Prompt-Learning techniques on Language Models and train hundreds of continuous prompts for different relation extraction datasets.

When conducting inference, I use some techniques to aggregate hundreds of prompts model as a joint model, so that the model can extract all relations of a given context by only one "forward step". Project website **https://wudao.aminer.cn/newkg/**

CoAI, Tsinghua University (remote) Apr 2021 - May 2021

Advisor: Prof.Minlie Huang Beijing, China

- Worked closely with postgraduate Runze Liang and Senior Wenchang Ma on conversational AI.
- Read some papers about conversational AI.
- Starting from scratch, I devoted time to learning HTML, CSS, Javascript, and some basic knowledge of Vue. After 1~2 weeks, I successfully made a simple conversation page, using node.js as backend.

ICDM, University of Electronic Science and Technology of China Nov 2020 - Jun 2021

Advisor: Prof.Fan Zhou Chengdu, China

- Did research on rumor detection on social media and read many papers about this field.
- Read many papers about graph neural networks and contrastive learning.
- Proposed data augmentation strategies and integrated contrastive learning to achieve label-efficient learning in rumor detection**. A first-author SIGIR short paper was accepted**.

KE Lab, University of Electronic Science and Technology of China Jul 2020 - Oct 2020

Advisor: Prof.Qiao Liu Chengdu, China

- Did some research on session-based recommendation systems.
- Reproduced some models such as GRU, STAMP, and SR-GNN.

Work Experience

Applied Scientist Intern, Microsoft STCA Jan 2022 - Feb 2022

- Worked as a machine learning engineer to improve the performance of recommendations, advertising, and searching.
- Worked on a research project about the exploit and exploration problem with Mengyan Zhang.

Awards and Scholarship

- SIGIR Student Travel Grant 2021
- The First Prize Scholarship 2020
- Midea Enterprise Scholarship 2020

Skills

- **Programming Language** Python, C, basic Java/HTML/CSS
- **Deep Learning Framework** Pytorch
- **Miscellaneous** Latex, SQL, Markdown