# Renxi Wang

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#### **EDUCATION**

### Northeastern University, China

Sept.  $2019 \sim present$ 

School of Computer Science and Engineering

**GPA**: 90.2/100 **Ranking**: 34/221

Course Highlights: Data Structures(91), Probability and Mathematical Statistics(94), Artificial Intelligence(93), Natural Language Processing(95), Object-Oriented Programming(98), Computing Theory(91), Mathematical Basis of Artificial Intelligence(95)

### RESEARCH INTERESTS

Information Retrieval; Machine Learning; Natural Language Processing; Dialogue System; Open-domain Question Answering

### **PUBLICATIONS**

Global-Local Modeling with Prompt-Based Knowledge Enhencement for Emotion Inference in Conversation.

Renxi Wang, Shi Feng EACL 2023 findings

#### RESEARCH EXPERIENCE

Topic: Emotion Detection in Dialogue Systems

June.  $2022 \sim present$ 

Instructor: Prof. Shi Feng; NEUDM

Goal: Utilize prompt learning to generate knowledge for emotion detection.

- Designed templates for GPT to generate knowledge for dialogue systems.
- Proposed new modeling method to predict emotion in conversations.

### Topic: Open-domain Question Answering

Oct.  $2021 \sim Dec. 2021$ 

Instructor: Prof. Zhenghao Liu; NEUIR

Goal: Utilize knowledge distillation to build an end-to-end QA system.

- Did Survey about dense passage retrieval, open-domain question answering.
- Distilled knowledge from reader to retriever for question answering.

# Topic: Model Architecture

July.  $2021 \sim Aug$ . 2021

### Instructor: Dr. Anxiang Ma; NLP Lab, NEU

Goal: Select number of computations (layers) more efficiently for decoding of transformer model.

- Designed loss with mutual information with respect to the layers.
- Adaptively selected decoding layers with newly designed loss.
- Speeded up the training and inference of Transformer models.

### **COMPETITIONS**

- Kaggle: NBME Score Clinical Patient Notes, SOLO bronze medal. Report
- Kaggle: U.S. Patent Phrase to Phrase Matching, *SOLO* bronze medal.

### AWARDS AND HONORS

- National Encouragement Scholarship, 2020/2022
- Outstanding Students Scholarship, 2020/2022

### COURSE PROJECTS

Unix Like File System Code

June. 2022

### Instructor: Shi Feng; Course: Operating System

- Implemented a Unix like file system with group links.
- Implemented Unix like commands to operate files.

Software Engineering Project  $\underline{\text{Code}}$ 

Instructor: Wei Li; Course: Software Engineering

• Built a software with python and pyqt.

• Operated postgresql database with psycopg 2.

## TECHNICAL STRENGTHS

English Fluency: TOEFL iBT 98

Computer Skills: Python, Pytorch, transformers, Git, C, C++, MATLAB, LATEX, Java.

May. 2022