Yue Hu

Personal

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Education

Xi'an Jiaotong-liverpool University `2018.9 - 2020.2`

- M.S. in Applied Informatics, CSSE Department
- Weighted Average Score: **67.3**, Merit Degree
- Voice Conversion Network Compression, Data Mining

Anhui JianzhuUniversity `2014.9 - 2018.6`

- B.S. in Physical Acoustics
- Mathematics and Physics Departmental Honors

Publications & Conferences

- **"Comparison of the effects of attention mechanism on translation tasks of different lengths of ambiguous words."**, Accepted by IWDP 2020.

  Our research is about that the alignment effect of attention mechanism is magnified in short text translation tasks with ambiguous nouns, while the effect of attention mechanism is far less than expected in long-text tasks, which means that attention mechanism is not the main mechanism for NMT model to feed WSD to integrate context information. This may mean that attention mechanism pays more attention to ambiguous nouns than context markers. The experimental results show that with the increase of text length, the performance of NMT model using attention mechanism will gradually decline.

- **"Compression of Non-parallel Voice Conversion with Generative Adversarial Network",** Article manuscriot in progress, work with Dr. Andrew Abel from CSSE Department of XJTLU.

  This paper proposes a compressed StarGAN-VC model based on the traditional StarGAN. The purpose of this compression model is to remove the redundant weights in convolutional neural networks and to retain only convolution filters with significant importance and contribution, thereby reducing the size of the model and thus improving computational efficiency.

- **"Strengthening word sense disambiguation in Neural Machine Translation"**, Accept by IWDP 2020, work with Jiahao Qin from MTH Department of XJTLU .

  In this paper, we propose a neural machine translation model that integrates the word sense isambiguation mechanism. Using wordnet as a reference dictionary, the Lesk algorithm designed as our word sense disambiguation mechanism is added to the codec model to strengthen the model
  word sense disambiguation ability. Based on this, a neural machine translation model that strengthens the ability of word sense disambiguation is designed, and compared with the

codec model including the attention mechanism, the experimental results show that the translation performance of the new model is significantly improved.

Research Experience

- **“Delay Outbreaks of Diseases Transmission By Isolating Core Vertexes in Social Networks”**, work with Dr. Wong Kok Hoe from CSSE Department of XJTLU.

  This project is on using Social network analysis (SNA) methods to study how to reduce the speed of disease transmission in real social networks by cutting off different key nodes in the network. Establishing disease transmission model through real social network data sets and comparing the isolation effectt of three kinds of core nodes in delaying the diseases outbreaks.

- **"Data mining of air quality index based on features clustering of Urban Agglomeration"**

  This project is based on the deep data mining of the natural geographical characteristics (such as longitude and latitude, altitude and coastal or not) and cultural characteristics and local air quality of urban agglomerations. According to the existing data, this project explores the causes of air quality changes in various urban belts, and provides potential solutions.

Research Interesting

- Data Science in Finance or Industry area
- Natural Language Processing & Computer Vision related

Employment

K2DATA, Industrial Data Co., Ltd `2019.6 - 2019.9, 2020.2 - Present`

Data Analyst, Data architect and Developer

- Data mining and business intelligence based on Industrial business background
- Engaged in object-oriented data asset management and Industrial semantic informatization
- Participate in the design and development of industrial data platform and asset management products

Skill

- Good at programming skills, familiar with python, java and golang programming.
- Familiar with Statistics & Statistics and machine learning.
- Familiar with Deep learning projects, and use of platforms such as Tensorflow and Pytorch.
- Familiar with Data Mining field, has experoence of using algorithms(like classification and clustering) to solve practical problems.
- Familiar with software development, has experoence in web application development, has experoence in Django/Flask/Gin framework and Vue.js/React.