Xiao Wang – Résumé

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Education

2017-2020 Peking University—— M.S. in Data Science

- Supervised by Bin Dong, associate professor of Peking University
- Learning some advanced courses, such as machine learning,deep leaning, algorithms for big data analysis, and getting good scores
- Having done some projects using machine learning and deep learning methods for some courses and industrial use
- Cumulative GPA: 3.34/4.0

2019/7 France Excellence Summer School——Data Science

- Taking part in the summer school program–*Data Science for Document Analysis and Understanding*, which was organized in Inria(Paris) and The University of La Rochelle, learning knowledge about natural language processing with international students

2013-2017 Minzu University of China —— B.S. in Statistics

- learning mathematical courses, such as mathematical analysis, advanced algebra; learning statistics courses, such as probability theory, applied mathematical statistics; getting excellent scores and gaining academic awards
- Cumulative GPA: 4.3 / 5.0

Awards and Scholarships

2018-2019	Academic Excellence Award	GPA top 31%
2015-2017	The First Prize Scholarship	GPA top 5%
2013-2015	National Scholarship	GPA top 5%
2015 / 9	First Prize in Mathematics Modeling Contest of Beijing	top 10%

Publication

1.Heating Load Forecasting for Combined Heat and Power Plants via Strand-Based LSTM, in submission

Projects and Research

2018/9 - 2019/5 Heating load forecasting

Cooperation with Electric Power Academy of Shandong Province in China

- The project was aimed at proposing a model for short-term heat load forecasting to guide heating operation management and dispatching. The recorded weather and heating load data were provided by Electric Power Academy of Shandong Province in China.
- We proposed a model based on a properly designed strand-based long short-term memory (LSTM) recurrent neural network. To improve the model's performance, we introduced proper smoothing and local scaling to pre-process data and use ensemle methods to make model robust. My task in this project was to clean and pre-process data and design the structure of the neural network.
- The model was implemented on an online system of a power plant in Shandong province, China. The model reported satisfactory online testing results that were better than their previous model.

2018/5-2018/8 Music generation

Project work in deep learning course

- The project was designed to generate some pieces of music of the same style of Jay Chou,one famous Chinese musician. A model was expected to learn from all pieces of music of Jay and generate new piece of music.
- We collected the notions of Jay's music as the data set from Internet, and saw all notions as sequences of notes. Then we designed a long short-term memory (LSTM) recurrent neural network to learn the dependency of notes. My task was to use word embedding to encode the notes, and then design and train the model.
- The model was trained on the data set. Given a specified input and a fixed length, the model can output a sequence of notes, which is one piece of music of the same style as Jay's music. This project got excellent score(90-94 for rank A-) in the deep learning course.

Skills

- **Programming Languages**

  Proficient in: Python
  Some knowledge in: C++,R,Matlab

- **Language**

  IELTS: 7.0 (R/L/S/W:8.5/7.5/5.5/6.5)
  GRE: 322(Q/V:170/152) + 3.5

Interests

- **Machine learning, Deep learning, Data science**