Yixiao **Zhang**

171-3808-6414 | ldzhangyx@outlook.com | ldzhangyx.github.io | ldzhangyx |

Natural Language Processing, Data Mining, Symbolic Music Generation

Education

University of Electronic Science and Technology of China(UESTC) *Chengdu, P.R.China*

985, 211, ONE OF TOP 10 UNIVERSITIES IN COMPUTER SCIENCE *Sept. 2015 - Exp. Jun. 2019*

- B.Eng. in Computer Science and Engineering
- GPA: 3.80/4, Average Score: 87.01/100, TOEFL: 95

Research Experiences

Machine Learning Group - Microsoft Research of Asia *Beijing, P.R. China*

RESEARCH INTERN *Nov. 2018 - Current*

- Working on finance data mining and deep learning, supervised by Dr. Weiqing Liu.
- Designed a prediction model to evaluate the actual financial value using existed history data.

University of Lethbridge, Mitacs Globalink Program 2018 *Lethbridge, Alberta, Canada*

RESEARCH ASSISTANT *Jul. 2018 - Oct. 2018*

- Research assistance under supervision of Prof. Yllias Chali.
- During this period, I assist a PhD. to complete the evaluation part of a text summarization model. Furthermore, to improve the performance of summarization, especially the grammar, I reproduced a deep neural model based on VAE using PyTorch, and transfer the model into summarization task.

Institute of Intelligent Learning Science and Applications of UESTC *Chengdu, P.R. China*

UNDERGRADUATE RESEARCH PROGRAM *Jun. 2016 - Jun. 2018*

- Research assistant in Natural Language Processing under supervision of Prof. Qu.
- During this period, I did some research on abstract summarization, and developed a deep model, which aimed to improve the quality of summarization result. This model took part in NLPCC 2018 Shared Task, and I wrote a pre-print draft to conclude my deep model.

Publications

Pre-training Sentences with Restricted Boltzmann Machine for Extractive Document Summarization *Submitted to NAACL 2019*

SECOND AUTHOR *Nov. 2018*

- We present a neural extractive summarizer with sentences pre-trained without supervision using a Restricted Boltzmann Machine(RBM). The pre-trained sentences serve as input to a Recurrent Neural Network (RNN) based sequence model for extractive summarization. Our model produces extractive summaries that beat the state-of-the-art with single and multi-document settings on both the DUC 2004 and CNN/DailyMail datasets. We also introduce a simple but efficient algorithm for building a training corpus for extractive summarization, i.e., documents with labelled summary-worthy sentences.

Programs

Symbolic Music Generation Model with Emotion Recognition and Adversarial Training *Chengdu, P.R.China*

TEAM LEADER & CODER, INNOVATION FUNDING OF SCHOOL OF CSE *Apr. 2017 - Sept. 2017*

- We built a music generation model, which is combined by two neural network units. Users can input a sentence or an image, then emotion analysis module extracts a emotion vector. The music generation module receives the vector, and generate background music in different styles. We used Convolutional Neural Network, Cognitive Service, Deep Convolutional Generative Adversarial Network.
- Outstanding Prize, Yinxinghuang School-Level Innovation Program

Symbolic Music Generation Model Based On Reinforcement Learning and GAN *Chengdu, P.R.China*

TEAM LEADER, MICROSOFT STUDENT PROJECT, UNDER THE SUPERVISION OF CHAO CHEN, STCA *Dec. 2017 - Feb. 2018*

- Transformed the reinforcement learning model SeqGAN to the field of music generation. Used Nottingham Dataset, and fine-tuned key parameters. Results are used as background music in my independent game program in Imagine Cup 2018.
- Third Prize, Sichuan Regional, Imagine Cup 2018
- Outstanding Prize, 2018 Microsoft Student Practice Space

Scholarships & Awards

2018 **Mitacs Globalink Graduate Fellowship,** CAD 15,000 *Applied in Jan. 2019*

2017 **Renmin Scholarship 2017 & 2016,** Chengdu, P.R.China *2017 & 2016*