

# Mingyang Kou

## Resume for Graduate School Admissions

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### Education

2015–2019 **Bachelor of Engineering**, Major in Computer Science and Technology, Tsinghua University, Beijing, China.

### Skills

Programming Languages C#, C/C++, JAVA, Python, Matlab, JavaScript, HTML/CSS, VHDL, Assembly(x86, x86-64, MIPS).  
Framework Tensorflow, Keras, Caffe, Django, Vue, Wechat Mini Program

### Projects

September-February **Neural Image Manipulator using DRAGAN**, Neural Network(GAN).

Generate anime images, then draw sketches to edit the images.

2017-18 I. Reproduced anime image generating network (DCGAN/WGAN/DRAGAN) of high quality.

II. Applied image editing method to deep neural network.

III. Used illustration2vec to initialize data for training.

IV. Our project generated images which has higher clarity, authenticity and quality of edit than baseline.

May-August 2017 **Proposed efficient method for full text retrieval by given multiple keywords**, Naive Bayes and TF-IDF.

Mentor: Dr. Jinjun Xiong in IBM and Professor Hailong Yao in Tsinghua University

I. Estimating the probability of the correlation between keywords with word2vec and Bayes inference.

II. Add the mutual information of Tf-Idf with the consideration of the keywords are correlate.

III. The proposed method achieves 99.6% at the average precision of 10% and outperforms than the existed baseline models.

September-December **Commercial Auction and Trading Competition System for ASDAN**, Python/Django, Vue and Wechat Mini Program.

2017 Team leader, architect and developer.

A simple system on webserver, web browser and Wechat Mini Program. Designed for ASDAN to manage the whole procedure of commercial auction and trading competitions.

April-June **Minecraft: A 3D game on FPGA**, VHDL.

2017 Team leader, architect and developer.

Pure hardware implementation, a 3D game on FPGA. Serial Interface, keyboard and VGA support.

### Honors and Awards

2014 The third prize of the 30th Chinese Mathematical Olympiad.

2014 The second prize of National Olympiad in Informatics.

2014 The first prize of China Team Selection Competition for International Olympiad in Informatics. (rank 7)

2014 The second prize of Asia-Pacific Informatics Olympiad.

2013 The third prize of National Olympiad in Informatics.

### Research Interest

**Natural Language Processing**, Text generation, Text classification, Text similarity analysis, Deep neural network for text processing(RNN, LSTM, GRU, AutoEncoder).

**Data Mining and Modeling**, Data Classification, Data Analysing, Data Clustering, Modeling, Data Structure, Statistics.

**Social Network**, Model of Social Network, Social Influence, Information Diffusion, Graph Theory.