

Education

- 2015 – 2019 **Undergraduate**, *Shanghai Jiao Tong University*.
Computer Science Major, with Zhiyuan Honor degree
- Fall 2017 **Exchange Student**, *The University of Texas at Austin*.
- 2019.8 – **PhD student**, *University of Michigan at Ann Arbor*.
Computer Science and Engineering

Research Experiences

- 2019.3 – **Causal Text Generation**, *SJTU*.
Advanced Data and Programming Technology (ADAPT) Lab, Advised by Prof. Kenny Zhu
- Built a dataset of 300,000⁺ cause-effect shot text pairs from novels.
 - Outperformed baseline methods in terms of BLUE score and accuracy by Causalnet information and attention mechanism fusion.
- 2018.5 – **Human Relationship Understanding with Natural Conversations**, *SJTU*.
- 2019.3 *Advanced Data and Programming Technology (ADAPT) Lab, Advised by Prof. Kenny Zhu*
- Built a movie character dialogue dataset with relationship labels from raw scripts with 5000⁺ sessions of 1000⁺ pairs. Designed scene splitting and conversation extraction algorithms.
 - Designed rules for extracting address terms based on related works, wrote user interface to help with human annotation and achieved an accuracy of 92.1%.
 - Extracted features including syntactic complexity, bag-of-words vector, and address terms, Linguistic Inquiry and Word Count (LIWC) and Dictionary of Affect in Language (DAL). Simple Logistic Regression achieved an accuracy of 68% with those features, compare to 70% baseline with a Hierarchical LSTM.
- Summer 2017 **Emotion recognition and Depression Detection based on EEG Signals**, *SJTU*.
Brain-like Computing and Machine Intelligence (BCMI) Lab, Advised by Prof. Baoliang Lv
- Applied traditional models like SVM/LSTM/CNN and tried fusion of multimodal data on previous dataset. Improved the model by period interception and noise composition.
 - Carried out multiple emotion arousal experiments with EEG recording equipments.
 - Designed cognitive and emotional experiments for depression diagnosis, and enhanced with VR material.

Projects

- 2017 **Expanded PintOS, an Operating System**, *UT Austin*.
- Implemented CPU scheduling, synchronization between multiple threads (with locks and semaphores) and the entire virtual memory mechanism, and file system improvement and consistency.
 - Expanded file system with multilevel tree indexes, sparse expansion support, subdirectories and synchronization.
- 2016 **Mini Search Engine with Text and Picture Searching**, *SJTU*.
- Built from scratch including web crawler, indexing, page ranking, image processing, etc.
 - Crawlled 50000 webpages and 50000 pictures with BeautifulSoup, lxml and multiprocessing; built dictionary and index with lucene, and used Hadoop to improve processing efficiency.
 - Implemented Canny and SIFT algorithms for picture similarity calculation, and designed search algorithms for edge smoothing.

2016 **FPGA Implementation of Monocyclic/Multicyclic CPU, SJTU.**

- Implemented a timer with button debouncer on 8 digital pipes on a DE2 board in Verilog.
- Implemented ALU, storage, controller for a simple monocyclic CPU, which can execute 20 basic MIPS instructions. Designed and Implemented I/O interface to display its functions with the LED digital tubes. Tested with oscilloscope and simulation programs.
- Expanded the CPU to a 5-segment pipeline version.

Awards

2019.6 **Zhiyuan Outstanding Student Scholarship**, *Shanghai Jiao Tong University.*

2019.6 **Excellent Bachelor's Thesis**, *Computer Science Department, Shanghai Jiao Tong University.*

2016,2017,2018 **Academic Excellence Scholarship**, *Shanghai Jiao Tong University.*

2017.6 **Government Scholarship for Exchange Students**, *China Scholarship Council.*

2016,2017 **Zhiyuan Scholarship of Honor**, *Exclusively for first and second year members of Zhiyuan Honors Program.*

Experiences and Activities

○ **Vice President, Association Union** *Shanghai Jiao Tong University*

- Managed more than 100 members and served more than 300 student clubs/associations in the university.
- Held all kinds of activities with tens of thousands of participants: shows, concerts, festival celebrations, fairs, information sessions, etc.

○ **Soprano, School Chorus Team** *Shanghai Jiao Tong University*

○ **Car Racing Team**, *Shanghai Jiao Tong University*

- Car body group, worked on producing car shell with wood, glass fibre and finally carbon fibre.
- Propaganda and management.
- Best Team Member Prize for 2017.

○ **An Hour of Code Volunteer** *Austin, Texas*

- Teaching coding in local elementary school.