TAIGE HOU

5 Yiheyuan Road, Haidian District, Peking University, Beijing, 100871, P. R. China
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EDUCATION

School of Electronics Engineering and Computer Science, Peking University, Beijing, China Aug 2016 - Sep 2019

Bachelor of Intelligence science and Technology, Overall GPA: 3.04/4.0

Core Courses: Selected Topics in Social Computing (94) / Introduction to Intelligent Technology (91) / Computational Perception and Scene Analysis (88) / Mathematical Analysis I (88) / Practice of Programming in C&C++ (82)

School of Computer Science and Engineering, Nanyang Technological University, Singapore June 2019 - Sep 2019

Visiting Scholar, under supervision of Prof. Gao Cong

Data Management and Analysis Laboratory

RESEARCH EXPERIENCES

Handwritten Text Recognition Based on CNN and LSTM | Peking University Jan 2019 - Present

Advisor: Xihong Wu, professor at Department of Machine Intelligence and assistant dean at School of Electronics Engineering and Computer Science, Peking University

- Implementing handwritten text recognition using writing tracks reconstructed from text images based on CNN and LSTM
- Using CNN to extract the features like strokes, spacing between stokes and roundness or sharpness of the letters from handwritten text images
- Sampling from the output of CNN using max-pooling, building the dictionary and padding the sequence generated from each image to a fixed length
- Predicting a sequence of coordinates representing the writing track using the LSTM network
- Identifying the character by comparing visual similarity of the predicted writing track with the standards based on the relative position between adjacent points

Political View Analysis Based on Channel Coding Theory | Peking University Oct 2018 - Dec 2018

Advisor: Liwei Wang, professor at School of Electronics Engineering and Computer Science, Peking University

Xi Wang, professor at History Department, Indiana University of Pennsylvania

- Applied Channel Coding Theory in political view data to analyze social unity and diversity
- Represented political views in Hamming Code for data unification and selected representative opinions by clustering
- Proved the lower bound of maximum Hamming Distance within a certain political view set using Gilbert-Vashamov Bound
- Conducted experiments to verify theoretical lower-bound by randomly sampling on the GSS (General Social Survey) data set, provided by University of Chicago
- Proposed a constituency division system to balance unity and diversity of a society
- Got 91/100 in the course, ranked top 3 in the class

LEADERSHIP AND ACTIVITIES

School of Electronics Engineering and Computer Science | Vice Minister of Public Relation Department May 2018

- Organized PKU 2018 Hackathon, including teams from 50 Universities, sponsored by Amazon, Schlumberger, Momenta, etc.

SKILLS

Programming Languages: C/C++, python, Lisp, matlab, LaTex, Assembly Language

Deep learning framework: Tensorflow, Keras, Pytorch