

Kai Yi (William)

CONTACT Email: williamyi96@gmail.com | [Google Scholar](#)
INFORMATION Homepage: kaiyi.me | Phone: +86 13772103675

EDUCATION **Xi'an Jiaotong University (XJTU)** Aug 2015 - Jun 2019
B.Eng., Software Engineering
- Department of Software Engineering, GPA: 84.64/100
- Thesis: Accurate Object Detection and Causal Inference in Complex Scene (*in preparation*)
- Advisor: Prof. [Nanning Zheng](#)

PUBLICATIONS [1] [Cognition-based Deep Learning: Progresses and Perspectives](#)
 Kai Yi, Shitao Chen, Yu Chen, Chao Xia, Nanning Zheng
 Artificial Intelligence Applications and Innovations (AIAI), 2018 (Oral)
 [2] [Knowledge-based Recurrent Attentive Neural Network for Small Object Detection](#)
 Kai Yi, Zhiqiang Jian, Shitao Chen, Yuedong Yang, Nanning Zheng
 Submitted to 22st IEEE International Conference on Intelligent Transportation Systems
 [3] [Affine LBG for Codebook Training of Univariate Linear Representation](#)
 Tiannan Dong, Jianji Wang, Meng Yang, **Kai Yi**, Nanning Zheng
 IEEE Global Conference on Signal and Information Processing (GlobalSIP), 2018

PROJECTS [1] [Hierarchical Conceptual Rotation of Mental Knowledge Representation](#)
 Kai Yi, Feng Yu, Liang Zhao, Tingting Han
 Project: Final-term Paper of Social Psychology, 2018
 [2] [Graph Theory Applied to Biological Network Alignment](#)
 Kai Yi, Wayne Hayes
 Project: Open Project hosted by Prof. [Wayne Hayes](#), Researchgate Available, 2018
 [3] [Neural Network Compression and Acceleration: An Overview](#)
 Kai Yi, Xinyu Jiang, Yanlan Lou, Yile Qiu, Shuanghe Yu, Jianye Pang
 Project: Personalized Speech Synthesis for Health Care, 2017
 [4] [Associative Memory Model and High-Level High-Order Hopfield Neural Network](#)
 Kai Yi, Nanning Zheng
 Project: Associative Memory Model, research paper in preparation
 [5] [Personalized Speech Synthesis System for Alleviating Loneliness of Old People \(CN\)](#)
 Kai Yi, Xinyu Jiang, Shuanghe Yu, Jianye Pang
 Project: National Undergraduates Innovation Project, rated as 'Excellent', 2018

RESEARCH **National University of Singapore** Jun 2019 (Scheduled)- Sep 2019
EXPERIENCE *Research Intern* Singapore

- Developing novel method for single RGB image based 3D pose estimation
- Advisor: Prof. [Angela Yao](#)

Sensetime Group Limited Mar 2019 - Jun 2019
Research Intern Beijing, China

- Develop accurate & fast object detection methods based on [mmdetection](#), and converted pytorch model into caffe model with supported layers, then transplated this algorithms to commercial embedded chips.
- Supervisor: [Wentao Liu](#), Senior Research Fellow of Sensetime

Institute of Artificial Intelligence and Robotics
Research & Engineering Intern

July 2017 - Feb 2019
Xi'an, Shaanxi

- Study on artificial intelligence system based on brain cognition, and a small object detection method named KB-RANN was designed.
- Proposed a new codebook training method named as A-LBG, accepted by GlobalSIP18.
- Accelerate several typical object detection methods by using TensorRT on TX2/PX2 mobile device and applied them in autonomous driving car.
- Supervisor: Prof. Nanning Zheng

Ministry of Education Key Lab for Intelligent Networks
Research & Engineering Intern

Sep 2016 - Apr 2017
Xi'an, Shaanxi

- Develop new training models to handle object tracking by using reinforcement learning.
- Supervisor: Prof. [Pinghui Wang](#) and Jing Tao

**TEACHING &
SERVICES**

Reviewer: IEEE Transactions on Neural Network and Learning Systems (TNNLS)
21st IEEE International Conference on Intelligent Transportation Systems (ITSC)

Student Member: IEEE, ACM

Teaching Assistant: Introduction to Machine Learning, Computer Architecture

**AWARDS &
HONORS**

- | | |
|---|-----------|
| - Zeng Xianzi Scholarship (37/4100, top 0.9%) | 2016-2018 |
| - Candidate of 6th Excellent Student Model of XJTU (6/37) | 2018 |
| - Outstanding Leader of the Students' Union (top 2%) | 2016 |
| - Social Activities Award (top 1%) of XJTU | 2016 |
| - National Encouragement Scholarship (top 1%) | 2016-2018 |
| - Excellent Student Award (top 5%) of XJTU | 2016-2018 |
| - Best Debater in Freshman Debating Contest of XJTU | 2015 |

ACTIVITIES

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| Leader of Technology Department, AI Club of XJTU | Dec 2017 - Nov 2018 |
| Volunteer Tutor of Academic Counseling Center of XJTU | Aug 2016 - July 2018 |
| Leader of App Group, Technical Club Activities' Center of XJTU | Jun 2016 - May 2017 |
| Member of News Club of XJTU | Apr 2016 - Dec 2016 |
| Leader of Department of Arts and Literature, Students' Union of XJTU | Sep 2015 - Feb 2017 |

**ADDITIONAL
INFORMATION**

Proficient in Python, TensorFlow, C++/C and Android, Master Pytorch and Caffe
Fond of long-distance running and reading classical German philosophy works