

Kai Yi (William)

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EDUCATION **Xi'an Jiaotong University (XJTU)** Aug 2015 - Jun 2019
B.Eng., Software Engineering
- Department of Software Engineering, GPA: 85.49/100
- Thesis: Accurate Object Detection and Weakly-Supervised Perception in Complex Scenes supervised by Prof. [Nanning Zheng](#) and rated as A+ (Top 1%)

PUBLICATIONS [1] [Feature Selective Small Object Detection via Knowledge-based Recurrent Attentive Network](#)
Kai Yi, Zhiqiang Jian, Shitao Chen, Nanning Zheng
IEEE International Conference on Intelligent Transportation Systems (ITSC), 2019
[2] [Affine LBG for Codebook Training of Univariate Linear Representation](#)
Tianman Dong, Jianji Wang, Meng Yang, **Kai Yi**, Nanning Zheng
IEEE Global Conference on Signal and Information Processing (GlobalSIP), 2018
[3] [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)

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** Apr 2019 - Sep 2019
EXPERIENCE *Research Intern* Singapore

- Develop novel method for single RGB image based 3D pose estimation:
 Reimplement some state of the art methods and tested them on RHD and STB datasets.
 Record hand pose gestures by using four RGB-D cameras and self-supervised labeling.
 Use sequential constraint to learn latent space of 3D hand pose estimation.
- Advisor: Prof. [Angela Yao](#)

Sensetime Group Limited
Research Intern

Mar 2019 - Jun 2019
Beijing, China

- Develop accurate & fast object detection methods based on [mmdetection](#), and converted pytorch model into caffe model with supported layers, then translated these 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](#)

Institute of Social Psychology of XJTU
Research Assistant

Mar 2018 - Nov 2018
Xi'an, Shaanxi

- "Detecting Adolescent Periodic Stress via Micro-blog":
Studied the continuous periodic analysis methods, and proposed a novel adolescent periodic stress cycle detection method based on probabilistic graph model & WARP algorithm.
- Supervisor: Prof. Liang Zhao and [Feng Yu](#)

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: ITSC19, ITSC18, IV18, TNNLS

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

- 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