LEI KE

HKUST, Clearwater Bay, Kowloon, Hong Kong

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EDUCATION

The Hong Kong University of Science and Technology   *Sept 2019 - Present*
Ph.D. of Computer Science and Engineering
Advisor: Prof.Chi-Keung TANG and Yu-Wing TAI

Wuhan University, China   *Sept 2014 - June 2018*
Bachelor of Software Engineering, Computer Science School   GPA: 3.65/4.0, Top 5%

RESEARCH INTEREST

- 3D Traffic Environment Perception, Understanding and Modeling
- Bridging Computer Vision and Natural Language Processing: Image & Video Captioning, Multi-Modal Learning

PUBLICATIONS

- **Lei Ke**, Wenjie Pei, Ruiyu Li, Xiaoyong Shen, Yu-Wing Tai. *Reflective Decoding Network for Image Captioning. The IEEE International Conference on Computer Vision* (**ICCV**), 2019.
- Wenjie Pei, Jiyuan Zhang, Xiangrong Wang, **Lei Ke**, Xiaoyong Shen and Yu-Wing Tai. *Memory-Attended Recurrent Network for Video Captioning. The IEEE Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2019.

EXPERIENCE

HKUST, Hong Kong | Reseach Assistant   *Sept 2019 - Present*
Advisor: Prof.Chi-Keung TANG and Yu-Wing TAI
Working on deep learning based 3D vehicle understanding in self-driving environment. Two papers submitted to CVPR2020.

Tencent Youtu Lab, Shenzhen | Reseach Intern   *Nov 2017 - Aug 2019*
Advisor: Prof.Yu-Wing TAI and Dr.Xiaoyong Shen
Worked on the task of image and video captioning. Designed the Reflective Decoding Network (RDN) for image captioning, which enhances both the long sequence dependency and position perception of words in a caption decoder. Achieved superior performance in both standard and complicated image captioning.

Alibaba Group, Hangzhou | Engineering Intern   *June 2017 - Oct 2017* Worked on the product data mining and recommendation system for Taobao department.

Wuhan University, Wuhan | Research Assistant   *May 2016 - Feb 2017*
Advisor: Prof.Xiaohui Cui
Utilized traditional machine learning algorithms to conduct the sentiment analysis with social media data.

AWARDS

- Postgraduate Studentship, HKUST   *2019-present*
- COMAP's Mathematical Contest in Modeling, Honorable Prize.   *2017*
- Excellent Student Scholarship, Wuhan University   *2015-2017*
- National Software Design Competition, Second Prize.   *2017*
- National Inspirational Scholarship, Wuhan University   *2016*
- National College Students' Mathematics Competition, Third Prize   *2015*

SKILLS AND INTERESTS

- Deep Learning Platform: PyTorch, TensorFlow, Caffe and MXNet
- Language: Mandarin(native), English(fluent)
- Programming Language: Python, C/C++, Java, C#, JavaScript.