# 張凱鵬 (ZHANG, Kaipeng)

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# **Research Interests**

Computer Vision: Face recognition, face alignment, face detection, and face hallucination

Recognition and Machine Learning: Deep learning

#### Education

#### **National Taiwan University**

09/2016 - Present

M.E. (expected July 2018) in Computer Science, advised by Prof. Winston Hsu.

• GPA: 4.1/4.3

#### Donghua University, Shanghai

09/2012 - 06/2016

B.Eng. in Computer Network Engineering (Excellent Class)

• GPA: 87/100

## Experience

Tencent AI Lab 07/2017- 08/2017

Intern - Computer Vision Group

## **National Taiwan University**

09/2016 - Present

Collaborate with Shenzhen Institutes of Advanced Technology

• Group-based emotion recognition in the wild (1<sup>st</sup> winner of Emotion Recognition in the Wild, ICMI 2017 Grand Challenge).

Research assistant (sponsored by MediaTek)

• Low-resolution face hallucination and recognition. We achieve superior hallucination visual quality and competitive face recognition results on LFW & YTF with only 12×14 input resolution.

## Multimedia Laboratory, Shenzhen Institutes of Advanced Technology

07/2015 - 08/2016

Visiting student

- Joint face detection and alignment using multi-task cascaded convolutional networks. We achieve the state-of-the-art performance with real-time running time efficiency. (accepted by SPL, Github)
- Facial gender, smile and accessories classification using deep convolutional neural networks (1<sup>st</sup> winner of ChaLearn Looking at People Challenge 2016 - Track 2 & 3, CVPRW 2016).
- Using two-stream contextual CNN with inside cascaded structure for fast and accurate face detection (accepted by ICCV 2017).
- Face Recognition using proposed discriminative deep feature learning approach. We achieve the state-of-the-art results on MegaFace and competitive results on LFW and YTF by single model. (accepted by ECCV 2016, Github)

#### **Publications**

Lianzhi Tan, **Kaipeng Zhang**, Kai Wang, Xiaoxing Zeng, Xiaojiang Peng, Yu Qiao, "Group Emotion Recognition with Individual Facial Emotion CNNs and Global Image Based CNNs", in *ACM International Conference on Multimodal Interaction (ICMI)*, 2017 - Grand Challenge

**Kaipeng Zhang**, Zhanpeng Zhang, Hao Wang, Zhifeng Li, Yu Qiao and Wei Liu, "Detecting Faces Using Inside Cascaded Contextual CNN", in *IEEE International Conference on Computer Vision (ICCV)*, 2017

Yandong Wen, Kaipeng Zhang, Zhifeng Li, Yu Qiao, "A Discriminative Deep Feature Learning Approach for Face

Recognition", European Conference on Computer Vision (ECCV), 2016

**Kaipeng Zhang**, Lianzhi Tan, Zhifeng Li, Yu Qiao, "Gender and Smile Classification using Deep Convolutional Neural Networks", in *IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW*), 2016 **Kaipeng Zhang**, Zhanpeng Zhang, Zhifeng Li, Yu Qiao, "Joint Face Detection and Alignment using Multi-task Cascaded Convolutional Networks", *IEEE Signal Processing Letters (SPL)*, vol. 23, no. 10, pp. 1499-1503, 2016

# **Selected Honors & Awards**

Delegated Trouble et 1111 Artes	
Emotion Recognition in the Wild - Group-based emotion recognition Challenge, ICMI 2017	
Grand Challenge	2017
• 1 <sup>st</sup> winner	
ChaLearn Looking at People workshop, CVPR 2016, Track 2 (Accessories Classification)	2016
• 1 <sup>st</sup> winner	
ChaLearn Looking at People workshop, CVPR 2016, Track 3 (Smile and Gender Classification)	2016
• 1 <sup>st</sup> winner	
Outstanding Bachelor Thesis	2016
<ul> <li>Joint Face Detection and Facial Landmarks Localization using Cascaded Convolutional Networks</li> </ul>	
China Undergraduate Mathematical Contest in Modeling	2015
Second Prize in Shanghai	
China Undergraduate Mathematical Contest in Modeling	2014
Third Prize in Shanghai	
ACM-ICPC Contest on Campus in Donghua University	2014
Third Prize	
Second-Class Scholarship in Shanghai Normal University	2013

## **English & Professional Skill**

English: CET4 (529)

Senior Network Engineer (China)

C/C++, Python, and Matlab programming