# Zhengkai Jiang

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# **Personal Profile**

**Email** 

Self-motivated deep learning algorithm researcher at Tencent Youtu Lab. I have publish several papers on top conferences such as NeurIPS, CVPR, ECCV and AAAI. My research interests mainly lie in object detection, video understanding and generative model.

# **Research Interest**

Object Detection, Instance Segmentation, Video Understanding, Generative Model

# **Education**

2017-2020 Master of Pattern Recognition and Intelligent System

National Laboratory of Pattern Recognition,

Institute of Automation, Chinese Academy of Sciences, Beijing, China

Overall GPA: 3.7/4.0

Fields: Computer Vision and Deep Learning

2013-2017 Bachelor of Automation

Northeastern University, Shenyang, China Overall GPA: 91.3/100, Ranking: 1/37(2/248)

# **Work Experience**

**Tencent Youtu Lab** Jul. 2020 - Now

Researcher, Shanghai, China

Topic: Image and Video Understanding

Megvii Research Apr. 2019 - Mar. 2020

Research Intern, Beijing, China Topic: General Object Detection Mentor: Dr. Gang Yu and Zeming Li

**Horizon Robotics** Jan. 2018 - Mar. 2019

Research Intern, Beijing, China Topic: Video Object Detection Mentor: Dr. Zhang Qian

**Sensetime Research** Apr. 2017 - Aug. 2017

Research Intern, Beijing, China

Topic: Pedestrian Attribute Classification

Mentor: Dr. Shao Jing

# **Publication**

### AutoAssign: Differentiable Label Assignment for Dense Object Detection

Benjin Zhu, Jianfeng Wang, **Zhengkai Jiang**, Fuhang Zong, Songtao Liu, Zeming Li, Jian Sun In Submission

#### **■** Fine-grained Dynamic Routing for Object Detection

Lin Song, Yanwei Li, **Zhengkai Jiang**, Zeming Li, Hongbin Sun, Jian Sun, Nanning Zheng Conference on Neural Information Processing Systems (NeurIPS), 2020

#### **Rethinking Learnable Tree Filter for Generic Feature Transform**

Lin Song, Yanwei Li, **Zhengkai Jiang**, Zeming Li, Xiangyu Zhang, Hongbin Sun, Jian Sun, Nanning Zheng

Conference on Neural Information Processing Systems (NeurIPS), 2020

#### Learning Where to Focus for Efficient Video Object Detection

**Zhengkai Jiang**, Yu Liu, Ceyuan Yang, Jihao Liu, Peng Gao, Qian Zhang, Shiming Xiang, Chunhong Pan

European Conference on Computer Vision (ECCV), 2020

#### Class-balanced Grouping and Sampling for Point Cloud 3D Object Detection

Benjin Zhu, **Zhengkai Jiang**, Xiangxin Zhou, Zeming Li, Gang Yu NuScenes Winner in IEEE Conference on Computer Vision and Pattern Recognition (CVPR) WAD Workshop, 2019

#### • Dynamic Fusion with Intra- and Inter- Modality Attention Flow for Visual Question Answering

Peng Gao, **Zhengkai Jiang**, Haoxuan You, Pan Lu, Steven Hoi, Xiaogang Wang, Hongsheng Li IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019, Oral

#### ■ Video Object Detection with Locally-Weighted Deformable Neighbours

**Zhengkai Jiang**, Peng Gao, Chaoxu Guo, Qian Zhang, Shiming Xiang, Chunhong Pan Association for the Advancement of Artificial Intelligence (AAAI), 2019

#### **Honors and Awards**

- Outstanding Student in Institution of Automation, Chinese Academy of Sciences, 2020
- Outstanding Student in Institution of Automation, Chinese Academy of Sciences, 2019
- **■** Excellent Graduate in Liaoning Province, 2017
- 1st class Scholarship of Northeastern University, 2014, 2016
- 2nd Prize on National Mathematical Contest in Modeling(in China), 2015
- 3st Prize on Final Chinese Mathematics Competitions(in Fuzhou, China), 2016
- 1st Prize on Chinese Mathematics Competitions(in Shenyang, China), 2015
- 2st Prize on Final Chinese Mathematics Competitions(in Wuhan, China), 2015
- 1st Prize on Chinese Mathematics Competitions (in Shenyang, China), 2015
- National Scholarship (Top 0.2% students in China), 2016
- National Scholarship (Top 0.2% students in China), 2015
- National Scholarship (Top 0.2% students in China), 2014

#### **Professorial Services**

# **Conference Reviewer**

- Association for the Advancement of Artificial Intelligence, 2021
- International Conference on Computer Vision and Pattern Recognition, 2021