PEIZE SUN

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EDUCATION

Xi'an Jiaotong University, Xi'an, Shaanxi, China   *Sep.2017 – Jun.2020(Expected)*
M.E. in Electrical Engineering and Automation
Recommended Postgraduate
Advisor: Prof. Xiaohua Wang

Xi'an Jiaotong University, Xi'an, Shaanxi, China   *Sep.2013 – Jun.2017*
B.E. in Electrical Engineering and Automation
Graduated with honor class
GPA: 88.66/100, **Overall Ranking: 1/64 (5/350)**

RESEARCH EXPERIENCE

Megvii Inc. (Face++), Beijing, China   *Dec.2018 – Nov.2019*
Detection Group
Research Intern, *Mentors: Boxun Li, Dr. Gang Yu*
Topic: Object Detection & Segmentation
- Improved object detection by re-defining positive and negative examples in training[1]
- Constructed contour-based instance segmentation with polar representation[3]
- Developed stage-wise hard example mining training method for pedestrian detection[2]
- Implemented Head-Body-Joint location for human detection in crowd[4]

University of California, Berkeley, Berkeley, CA, USA   *Jul.2018 – Sep.2018*
Berkeley Artificial Intelligence Research Lab
Visiting Student, *Mentor: PhD. Ke Li*
Project: Amodal Instance Segmentation [Poster]
- Developed network architecture with random vector input to predict multi-modal segmentation
- Implemented an Implicit Maximum Likelihood Estimation algorithm in training iteration process

Xi'an Jiaotong University, Xi'an, Shaanxi, China   *Oct.2015 – Jun.2018*
State Key Laboratory of Electrical Insulation and Power Equipment
Research Assistant, *Advisor: Prof. Xiaohua Wang*
Project: Power Grid Unattended Inspection
- Implemented Power transmission line overheat defects detection in infrared images[6]
- Developed cloud service platform for power switchgear diagnosis[7]

PUBLICATIONS AND MANUSCRIPTS

Papers:(* indicates equal contribution)

1. **Peize Sun**, Hongkai Zhang, Boxun Li, Gang Yu. Label Matters in Object Detection. In preparing

2. **Peize Sun**, Li Hu, Hongkai Zhang, Feng Xiong, Boxun Li, Gang Yu. Effective Example Mining for Single-Stage Pedestrian Detection. In preparing

3. Enze Xie*, **Peize Sun***, Xiaoge Song*, Wenhai Wang, Xuebo Liu, Ding Liang, Chunhua Shen, Ping Luo. PolarMask: Single Shot Instance Segmentation with Polar Representation. Preprint arXiv:1909.13226. [Paper] [Code]
   Submitted to IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2020.

4. Kevin Zhang*, Feng Xiong*, **Peize Sun**, Li Hu, Boxun Li, Gang Yu. Double Anchor R-CNN for Human Detection in a Crowd. Preprint arXiv:1909.09998. [Paper]
   Under review in Association for the Advancement of Artificial Intelligence (AAAI) 2020.

5. Wenjia Wang*, Enze Xie*, **Peize Sun**, Wenhai Wang, Lixun Tian, Chunhua Shen, Ping Luo. TextSR: Content-aware Text Super-Resolution via Recognition Guidance. Preprint arXiv:1909.07113. [Paper] [Code]
   Under review in Association for the Advancement of Artificial Intelligence (AAAI) 2020.

6. Feiyan Zhou, Xuandong Liu, Chengjun Liang, **Peize Sun**. Identification of Transmission Line Overheat Defects in Infrared Image based on Deep Learning. Chinese Conference of Electrical Engineering, 2019. [Paper] [Slides]

7. **Peize Sun**, Xiaonan Wang, Kang Yang, Xiaohua Wang, Mingzhe Rong. Development of Cloud Service Platform for Live Detection System of Switchgear. Chinese Conference of Electrical Appliance Intelligent System, 2017. [Paper]

Patents:

1. **Peize Sun**, Tianjie Qiao, Shuangrui Yin. A Method for Flue Gas Pollutant Disposal Based on Wet Plasma. Chinese Patent, 201610595948.5

2. Xiaohua Wang, **Peize Sun**, Tianjie Qiao. A Device for Flue Gas Pollutant Treatment. Chinese Patent, 201610595567.7

3. Mingzhe Rong, Xiaohua Wang, Kang Yang, Aijun Yang, Weidan Deng, Dingxin Liu, **Peize Sun**, DingLi Xie. A method and system for managing and monitoring status of electrical equipment based on cloud service platform. Chinese Patent, 201710534456.X(Public)

4. Lei Chen, Yu Xiao, **Peize Sun**, Weidan Deng. A Device for Smog Treatment. Chinese Patent, 201721306285.7(Public)

5. Liang Li, Li Zhang, Feiyan Zhou, Peilin Hao, Houkai Zhang, **Peize Sun**. A compact alternating current arc heating device and driving method. Chinese Patent, 201711308978.4(Public)

AWARDS AND COMPETITIONS

First-class Academic Scholarship	*2018*
Chiang Chen Enterprise Scholarship (top 2%)	*2017,2018*
First-class Recommended Postgraduate Scholarship	*2017*
National Scholarship (top 1%)	*2016*
National Endeavor Scholarship (top 1%)	*2014,2015*

COMPETITIONS

1st Place in Robust Reading Challenge on Arbitrary-Shaped Text of ICDAR [Link]	*2019*
2rd Prize, "TI Cup" Electronic Design Contest of Shaanxi	*2016*
2rd Prize, National Contest on Energy Saving & Emission Reduction	*2016*
1st Prize (Meritorious Winner), Interdisciplinary Contest in Modeling of America	*2016*

SKILLS

Programming Languages	Python, MATLAB, C++
Deep Learning Tools	PyTorch, Caffe