PEIZE SUN

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EDUCATION

Xi'an Jiaotong University, Xi'an, Shaanxi, China *Sep.2017 – now*
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 Honors

PUBLICATIONS AND MANUSCRIPTS

Papers:(* indicates equal contribution)

1. **PolarMask: Single Shot Instance Segmentation with Polar Representation**
   Enze Xie*, **Peize Sun***, Xiaoge Song*, Wenhai Wang, Ding Liang, Chunhua Shen, Ping Luo
   Conference on Computer Vision and Pattern Recognition (**CVPR**), 2020 **(Oral)**
2. **Double Anchor R-CNN for Human Detection in a Crowd**
   Kevin Zhang*, Feng Xiong*, **Peize Sun**, Li Hu, Boxun Li, Gang Yu
   Preprint arXiv:1909.09998
3. **TextSR: Content-aware Text Super-Resolution via Recognition Guidance**
   Wenjia Wang*, Enze Xie*, **Peize Sun**, Wenhai Wang, Lixun Tian, Chunhua Shen, Ping Luo
   Preprint arXiv:1909.07113
4. **Identification of Transmission Line Overheat Defects in Infrared Image based on Deep Learning**
   Feiyan Zhou, Xuandong Liu, Chengjun Liang, **Peize Sun**
   Chinese Conference of Electrical Engineering, 2019
5. **Development of Cloud Service Platform for Live Detection System of Switchgear**
   Peize Sun, Xiaonan Wang, Kang Yang, Xiaohua Wang, Mingzhe Rong
   Chinese Conference of Electrical Appliance Intelligent System, 2017

Patents:

1. **A Method for Flue Gas Pollutant Disposal Based on Wet Plasma**
   Peize Sun, Tianjie Qiao, Shuangrui Yin, Xiaohua Wang. *Chinese Patent*, 201610595948.5
2. **A Method and System for Managing and Monitoring Status of Electrical Equipment based on Cloud Service Platform**
   Mingzhe Rong, Xiaohua Wang, Kang Yang, Aijun Yang, Weidan Deng, Dingxin Liu, **Peize Sun**, DingLi Xie. *Chinese Patent*, 201710534456.X
3. **A Device for Smog Treatment**
   Lei Chen, Yu Xiao, **Peize Sun**, Weidan Deng, Zhehao Pei, Jiabei Ge, Linxin Miao, Haoyang Zhang, Wenquan Tao. *Chinese Patent*, 201721306285.7

RESEARCH EXPERIENCE

Megvii Inc. (Face++), Beijing, China *Dec.2018 – Nov.2019*
Detection Group
Research Intern, *Mentors: Boxun Li, Dr. Gang Yu*
Topic: Object Detection & Instance Segmentation

- Constructed contour-based instance segmentation with polar representation[1]
- Implemented head-body-joint location for human detection in crowd[2]
- Improved object detection by re-defining positive and negative training examples
- Re-visited hard example mining training methods for pedestrian detection

University of California, Berkeley, Berkeley, CA, USA *Jul.2018 – Sep.2018*
Berkeley Artificial Intelligence Research Lab
Visiting Student, *Mentor: Dr. Ke Li*
Project: Amodal Instance Segmentation

- Developed network architecture with random vector input to predict multimodal segmentation
- Implemented Implicit Maximum Likelihood Estimation algorithm in training 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*
Topic: Power Grid Unattended Operation and Maintenance

- Developed insulator overheat defects detection in infrared images[4]
- Constructed cloud service platform for power switchgear diagnosis[5]
- Implemented power transmission line detection and anomalous object detection

AWARDS

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 *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