JINMING SU (苏金明)

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👤 ABOUT

I currently work as an algorithm engineer at **Meituan**. I am broadly interested in solving real-world visual understanding problems with optimization/learning-based algorithms. Recently, I focus on developing learning and optimization frameworks for **scene understanding** and **3D Reconstruction**.

I obtained my Master's Degree (CS) in State Key Laboratory of Virtual Reality Technology and Systems, SCSE, Beihang University, adviced by Prof. Jia Li, in Jan. 2020. From 2018 to 2019, I worked as a research assistant at Peng Cheng Laboratory with Dr. Changqun Xia. Before that, I received Bachelor's Degree (CS) from SCSE, Northeastern University, in Jul. 2017.

👥 EXPERIENCE

Meituan, Beijing, China   Feb. 2020 – Present

Algorithm Engineer

Focusing on scene understanding in road scenes, mainly image semantic/instance segmentation and 3D vision.

Peng Cheng Laboratory (PCL), Shenzhen, China   Dec. 2018 – Mar. 2019

Research Assistant   Intern

Engaged in the basic research work of computer vision. During this period, I proposed a remarkable algorithm about "error-perception" for salient object detection which was accepted by T-IP 2021.

🎓 EDUCATION

Beihang University (BUAA), Beijing, China   Sept. 2017 – Jan. 2020

M.Sc. in Computer Science and Technology, ranked 9/303, top 3.0%
– State Key Laboratory of Virtual Reality Technology and Systems, SCSE
– Thesis: 场景和任务引导的图像显著内容解析
– Advisor: Prof. Jia Li

Northeastern University (NEU), Shenyang, China   Sept. 2013 – Jun. 2017

B.Eng. in Computer Science and Technology, ranked 10/258, top 3.9%
– Thesis: 基于移动终端的室外场景语义分割方法与系统
– Advisor: Prof. Bin Zhang
– Recommended for admission to Beihang University without exams

📑 SELECTED PUBLICATIONS

- Jia Li, **Jinming Su**, Changqun Xia, Yonghong Tian. Salient Object Detection with Purificatory Mechanism and Structural Similarity Loss. *IEEE Transactions on Image Processing (T-IP), 30, pp.6855-6868, 2021.*

- **Jinming Su**, Chao Chen, Ke Zhang, Junfeng Luo, Xiaoming Wei and Xiaolin Wei. Structure Guided Lane Detection. *International Joint Conference on Artificial Intelligence (IJCAI), 2021.*

- **Jinming Su**, Changqun Xia and Jia Li. Exploring Driving-aware Salient Object Detection via Knowledge Transfer. *IEEE International Conference on Multimedia and Expo (ICME), 2021. (oral)*

- Jia Li, **Jinming Su**, Changqun Xia, Yonghong Tian. Distortion-adaptive Salient Object Detection in 360° Omnidirectional Images. *IEEE Journal of Selected Topics in Signal Processing (J-STSP), 14(1), pp.38-48, 2020.*

- **Jinming Su**, Jia Li, Yu Zhang, Changqun Xia and Yonghong Tian. Selectivity or Invariance: Boundary-aware Salient Object Detection. *IEEE International Conference on Computer Vision (ICCV), 2019.*

- **Jinming Su**, Ruihong Yin, Xingyue Chen, Ke zhang, Junfeng Luo, Xiaoming Wei and Xiaolin Wei. Perceive, Excavate and Purify: A Novel Object Mining Framework for Instance Segmentation. *(Under Review)*
- **Jinming Su**, Ruihong Yin, Shuaibin Zhang, Junfeng Luo, Xiaoming Wei and Xiaolin Wei. Rethinking Consistency for Video Semantic Segmentation. *(Under Review)*
- Junjie Wu, Tianshu Yu, Changqun Xia, **Jinming Su** and Jia Li. View-aware Salient Object Detection for 360° Omnidirectional Image.
- Changqun Xia, Jia Li, **Jinming Su** and Yonghong Tian. Relating Background to Foreground: Exploring Reciprocal Attention for Salient Object Detection by Cooperative Learning. *arXiv preprint arXiv:1909.08269, 2019.*
- Changqun Xia, Jia Li, **Jinming Su** and Ali Borji. Learning a saliency evaluation metric using crowdsourced perceptual judgments. *arXiv preprint arXiv:1806.10257, 2018.*
- Patents: 10 items is in applications and 4 is issued (1 in the United States).

⚙ Skills

- Specialize in deep learning for computer vision, especially semantic/instance/panoptic segmentation
- passed CET6, good at academic writing and presentation
- Familiar with deep learning libraries Pytorch/Caffe
- Familiar with Python/Matlab/C++, Linux
- Familiar with data structure and algorithm

★ Projects & Activities

- Journal reviewer of T-PAMI
- Conference reviewer of CVPR, ICCV, ECCV, MIPR (PC Member)
- Teaching assistant for *Machine Learning and Its Engineering Foundation* at BUAA, Spring 2018
- Designed and developed the official website of CVTEAM laboratory http://cvteam.net
- Participated in the design and development of program online judge platform for NEU https://oj.neu.edu.cn
- Member of the ACM-ICPC team of NEU
- Github: https://github.com/Jinming-Su
- Old blog: https://blog.csdn.net/u014451076
- Homepage: http://jinmingsu.net

▌ Selected Honours

- Intelligent Traffic Star (39 of 2000+), Meituan, 2021
- Outstanding Master Graduate of Beijing, 2020
- Outstanding Master Graduate Thesis of BUAA, 2020
- National Scholarship, 2019
- Huawei Scholarship, 2019
- Outstanding Student of BUAA, 2019
- Merit Student of BUAA, 2018/2019
- First Class Scholarship of Excellent Student in BUAA, 2017-2019
- Outstanding Undergraduate Thesis of NEU, 2017
- National Encouragement Scholarship, 2014-2016
- The Zhou Kun Scholarship, 2013-2016
- Excellent Student of NEU, 2014/2015
- Second Prize of the National English Competition for College Students, 2015
- First Prize of the Liaoning Province ACM-ICPC Contest, 2014/2015
- Second Prize of the China Undergraduate Mathematical Contest in Modeling, 2014
- Outstanding Individual of Scientific and Technological Innovation of NEU, 2014

❤ MORE PERSONAL INFORMATION

- Date of birth: Jan. 25, 1995
- Native place: Yuzhou City, Xuchang City, Henan Province (河南省禹州市)
- Political appearance: Member of the Communist Party of China (CPC)
- I am a good partner, able to adapt to different circumstances quickly, responsible, optimistic and easy to communicate. At the same time, I have reliable academic and engineering ability, and I am willing to solve challenging problems.