

INFORMATIONS

- **Phone:** +86-13031036150
- **E-mail:** shifeng.zhang@nlpr.ia.ac.cn
- **Homepage:** <http://www.cbsr.ia.ac.cn/users/sfzhang>
- **Address:** No. 95, Zhongguancun Road, Haidian District, Beijing, China
- **Interests:** Machine Learning, Pattern Recognition, Computer Vision, Object Detection, Face Detection, Pedestrian Detection



EDUCATIONS

- 2015.09-2020.06 | PhD candidate | Supervisor: Stan Z. Li | National Laboratory of Pattern Recognition (NLPR), Institute of Automation, Chinese Academic of Sciences (CASIA)
 - a fifth-year bachelor-straight-to-PhD student; **28** published papers, including **20 papers** (CCF-A: 13, CCF-B: 2, CCF-C: 3, SCI: 7) published as first author; 3 papers under review; 5 chinese patents.
- 2011.09-2015.06 | Bachelor degree | School of Communication and Information Engineering (SCIE), University of Electronic Science and Technology of China (UESTC)
 - GPA is 3.97/4.0, ranking **1st** of the grade (totally **648** students), 2014.10 enrolled to NLPR, CASIA without entrance examination.

PROJECTS

- **State-of-the-art** Face Detector: Achieving the state-of-the-art accuracy on the AFW, PASCAL Face, FDDB, WIDER FACE benchmarks with GPU real-time
- **CPU Real-time** Face Detector: For the VGA-resolution image, achieving 20 FPS speed on the CPU devices with competitive accuracy
- **FitNet** Face Detector: Learning a small student detector from a big teacher detector to accelerate the detector as well as maintain almost the same accuracy
- High Accuracy Face Detector Based on Multi-scale Anchor. Zhen Lei, Xiangyu Zhu, **Shifeng Zhang**, Stan Z. Li. Chinese Patent. 201710379478.3 (Authorization).
- CPU Real-time and High Accuracy Face Detector. **Shifeng Zhang**, Zhen Lei, Xiangyu Zhu, Stan Z. Li. Chinese Patent. 201710541087.7 (Authorization).
- Occlusion-aware Pedestrian Detector. Zhen Lei, **Shifeng Zhang**, Chubin Zhuang, Stan Z. Li. Chinese Patent. 201810393658.1 (Pending).
- Training Detector from Scratch. Rui Zhu, Hailin Shi, **Shifeng Zhang**, Xiaobo Wang, Tao Mei. Chinese Patent. 201811222696.7 (Pending).
- RefineFace: Refinement Neural Network for High Performance Face Detection. Zhen Lei, **Shifeng Zhang**, Yongming Zhang. Chinese Patent. 201910502740.8 (Pending).

PUBLICATIONS

- **Shifeng Zhang**, Cheng Chi, Zhen Lei, Stan Z. Li. RefineFace: Refinement Neural Network for High Face Detection. IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI, SCI-I, CCF-A, IF 17.73**)
- **Shifeng Zhang**, Cheng Chi, Yongqiang Yao, Zhen Lei, Stan Z. Li. Bridging the Gap Between Anchor-based and Anchor-free Detection via Adaptive Training Sample Selection. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR, CCF-A**), **Oral, Best Paper Nomination**, 2020
- **Shifeng Zhang**, Longyin Wen, Zhen Lei, Stan Z. Li. RefineDet++: Single-Shot Refinement Neural Network for Object Detection. IEEE Transactions on Circuits and Systems for Video Technology (**TCSVT, SCI-II, CCF-B, IF4.046**)
- **Shifeng Zhang**, Ajian Liu, Jun Wan, Yanyan Liang, Guogong Guo, Sergio Escalera, Hugo Jair Escalante, Stan Z. Li. CASIA-SURF: A Large-scale Multi-modal Benchmark for Face Anti-spoofing. IEEE Transactions on Biometrics, Behavior, and Identity Science (**TBIOM**)
- **Shifeng Zhang**, Xiaobo Wang, Zhen Lei, Stan Z. Li. FaceBoxes: A CPU Real-Time and Accurate Unconstrained Face Detector. Neurocomputing (**SCI-II, IF4.072**)
- **Shifeng Zhang**, Yiliang Xie, Jun Wan, Hansheng Xia, Stan Z. Li, Guodong Guo. WiderPerson: A Diverse Dataset for Dense Pedestrian Detection in the Wild. IEEE Transactions on Multimedia (**TMM, SCI-II, CCF-B, IF5.452**)
- **Shifeng Zhang**, Xiaobo Wang, Ajian Liu, Chenxu Zhao, Jun Wan, Sergio Escalera, Hailin Shi, Zezheng Wang, Stan Z. Li. CASIA-SURF: A Dataset and Benchmark for Large-scale Multi-modal Face Anti-spoofing. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR, CCF-A**), 2019
- **Shifeng Zhang**, Longyin Wen, Hailin Shi, Zhen Lei, Siwei Lyu, Stan Z. Li. Single-Shot Scale-Aware Network for Real-Time Face Detection. International Journal of Computer Vision (**IJCV, SCI-I, CCF-A, IF6.071**)
- **Shifeng Zhang**, Longyin Wen, Xiao Bian, Zhen Lei, Stan Z. Li. Occlusion-aware R-CNN: Detecting Pedestrians in a Crowd. European Conference on Computer Vision (**ECCV, CCF-A**), 2018
- **Shifeng Zhang**, Longyin Wen, Xiao Bian, Zhen Lei, Stan Z. Li. Single-Shot Refinement Neural Network for Object Detection. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR, CCF-A**), 2018
- **Shifeng Zhang**, Xiangyu Zhu, Zhen Lei, Hailin Shi, Xiaobo Wang, Stan Z. Li. Detecting Face with Densely Connected Face Proposal Network. Neurocomputing (**SCI-II, IF4.072**)
- **Shifeng Zhang**, Xiangyu Zhu, Zhen Lei, Hailin Shi, Xiaobo Wang, Stan Z. Li. S³FD: Single Shot Scale-invariant Face Detector. IEEE International Conference on Computer Vision (**ICCV, CCF-A**), 2017
- **Shifeng Zhang**, Xiangyu Zhu, Zhen Lei, Hailin Shi, Xiaobo Wang, Stan Z. Li. FaceBoxes: A CPU Real-time Face Detector with High Accuracy. International Joint Conference on Biometrics (**IJCB, CCF-C**), **Spotlight**, 2017
- **Shifeng Zhang**, Xiangyu Zhu, Zhen Lei, Hailin Shi, Xiaobo Wang, Stan Z. Li. Detecting Face with Densely Connected Face Proposal Network. **CCBR, EI, Best Student Paper**, 2017
- Cheng Chi*, **Shifeng Zhang*†**, Junliang Xing, Zhen Lei, Xudong Zou. PedHunter: Occlusion Robust Pedestrian Detector in Crowded Scenes. Association for the Advancement of Artificial Intelligence (**AAAI, CCF-A**), 2020. (*equal contribution, †corresponding author)
- Cheng Chi*, **Shifeng Zhang*†**, Junliang Xing, Zhen Lei, Stan Z. Li, Xudong Zou. Relational Learning for Joint Head and Human Detection. Association for the Advancement of Artificial Intelligence (**AAAI, CCF-A**), 2020. (*equal contribution, †corresponding author)
- Xiaobo Wang*, **Shifeng Zhang***, Shuo Wang, Tianyu Fu, Hailin Shi, Tao Mei. Mis-classified Vector Guided Softmax Loss for Face Recognition. Association for the Advancement of Artificial Intelligence (**AAAI, CCF-A**), **Oral**, 2020. (*equal contribution)
- Rui Zhu*, **Shifeng Zhang***, Xiaobo Wang, Longyin Wen, Hailin Shi, Liefeng Bo, Tao Mei. ScratchDet: Training Single-Shot Object Detectors from Scratch. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR, CCF-A**), **Oral**, 2019. (* equal contribution)
- Cheng Chi*, **Shifeng Zhang*†**, Junliang Xing, Zhen Lei, Stan Z. Li, Xudong Zou. Selective Refinement Network for High Performance Face Detection. Association for the Advancement of Artificial Intelligence (**AAAI, CCF-A**), **Oral**, 2019. (*equal contribution, †corresponding author)
- Xiaobo Wang*, **Shifeng Zhang***, Zhen Lei, Si Liu, Xiaojie Guo, Stan Z. Li. Ensemble Soft-Margin Softmax Loss for Image Classification. International Joint Conference on Artificial Intelligence (**IJCAI, CCF-A**), 2018. (* equal contribution)

- Xiaobo Wang, Shuo Wang, **Shifeng Zhang[†]**, Cheng Chi, Tao Mei. Loss Function Search for Face Recognition. International Conference on Machine Learning (ICML, CCF-A), 2020 (**†corresponding author**)
- Chubin Zhuang, **Shifeng Zhang**, Zhen Lei, Xiangyu Zhu, Jinqiao Wang. FLDet: A CPU Real-time Joint Face and Landmark Detector. IAPR International Conference On Biometrics (ICB, CCF-C), 2019
- Haibo Jin, **Shifeng Zhang**, Xiangyu Zhu, Yinhang Tang, Zhen Lei. Learning Lightweight Face Detector with Knowledge Distillation. IAPR International Conference On Biometrics (ICB, CCF-C), 2019
- Chubin Zhuang, **Shifeng Zhang**, Xiangyu Zhu, Zhen Lei, Stan Z. Li. Single Shot Attention-Based Face Detector . CCB, EI, 2018
- Yongming Zhang, Shifeng Zhang, Chubin Zhuang, Zhen Lei. Feature Enhancement for Joint Human and Head Detection . CCB, EI, 2019
- Yang Yang, Zhen Lei, **Shifeng Zhang**, Hailin Shi, Stan Z. Li. Metric Embedded Discriminative Vocabulary Learning for High-Level Person Representation. Association for the Advancement of Artificial Intelligence (AAAI, CCF-A), Oral, 2016
- Lu Zhang, Zhi-Yong Liu, **Shifeng Zhang**, Xu Yang, Hong Qiao, Kaizhu Huang. Cross-Modality Interactive Attention Network for Multispectral Pedestrian Detection. Information Fusion (SCI-I, IF10.716)
- Xuxin Lin, Jun Wan, Yiliang Xie, **Shifeng Zhang**, Chi Lin, Yanyan Liang, Guodong Guo, Stan Z. Li. Task-oriented Feature-fused Network with Multi-variate Dataset for Joint Face Analysis. IEEE Transactions on Cybernetics (TCYB, SCI-I, CCF-B, IF10.387)

PREPRINTS

- **Shifeng Zhang**, Rui Zhu, Xiaobo Wang, Hailin Shi, Tianyu Fu, Shuo Wang, Tao Mei, Stan Z. Li. Improved Selective Refinement Network for Face Detection”, Technical report

AWARDS

- 2019 1st place in UG2 Challenge on the dark face detection track
- 2019 VALSE 2018 Annual Outstanding Student Paper Award Honorable Mention
- 2019 Dai Ruwei Scholarship
- 2019 BHBP Scholarship
- 2018 Baidu Scholarship (**10 students worldwide**)
- 2018 CCF-CV Academic Emerging Award
- 2018 National Scholarship in Institute of Automation Chinese Academy of Sciences
- 2018 3rd place in WIDER Challenge on the face detection track
- 2018 BHBP Scholarship
- 2018 Pan Deng First-class Scholarship
- 2018 Merit Student
- 2018 Best Student Paper Award on CCB
- 2013 – Present Tang Lixin Scholarship (**Lifetime**)
- 2015 China Telecom Tianyi Scholarship (**50 students in China**)
- 2015 Outstanding Graduates in Sichuan Province
- 2015 First-class Certificate for All-round Development of College Students in Sichuan Province
- 2014 Gold Award for China College Students Entrepreneurship Competition
- 2014 First Prize for National English Competition for College Student
- 2014 National Scholarship in University of Electronic Science and Technology of China
- 2013 National Scholarship in University of Electronic Science and Technology of China
- 2012 National Scholarship in University of Electronic Science and Technology of China