

Bo LIU

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🎓 EDUCATION

Beihang University (BUAA), Beijing, China

09/2018 – Present

Master student in Computer Science and Technology

Expected graduation: 01/2021

- Lab: State Key Laboratory of Virtual Reality Technology and Systems
- Research Area: Computer Vision, Medical Image Analysis
- Advisor: Prof. Feng Lu & Dr. Lin Gu

Xidian University (XDU), Shaanxi, China

09/2014 – 06/2018

B.S. in Computer Science and Technology

- GPA: 87.7 / 100
- Ranking: 2 / 186 (top 2.0%)

📄 PUBLICATIONS

First Author (Medical Image Analysis):

- **Bo Liu**, Lin Gu, Shancheng Zhang, Yuhao Niu, Feng Lu. What's in the Vessel: A Novel Vessel Structure Descriptor for Fundus Disease Analysis (Under Preparation)
- **Bo Liu**, Lin Gu, Feng Lu. Unsupervised Ensemble Strategy for Retinal Vessel Segmentation. *Medical Image Computing and Computer Assisted Intervention (MICCAI)*, 2019.

Participating:

- Feifan Lv, **Bo Liu**, Feng Lu. Fast Enhancement for Non-Uniform Illumination Images using Light-weight CNNs. *ACM Multimedia (ACM MM)*, 2020.
- Mingjing Ai, Guozhi Shan, **Bo Liu** and Tianyang Liu. Rethinking ReID: Multi-Feature Fusion Person Re-identification Based On Orientation Constraints. (Under Review by ICPR 2020)
- Wenhan Yang, Ye Yuan, Wenqi Ren, ..., **Bo Liu**, et al. Advancing Image Understanding in Poor Visibility Environments. *IEEE Transactions on Image Processing (TIP)*, 2019.
- Yanjie Lian, Huifang Ma, Wang Li, ..., **Bo Liu**. Study on the Rule of Prescription of Alopecia in Tang and Song Dynasty. *Chinese Medicine Modern Distance Education*, 2018. (In Chinese)

👥 PROJECTS

Fatigue Detection for Air Traffic Controller

12/2019 – Present

Project Leader Peng Cheng Lab, Shenzhen, China

- *Task*: Early warning of abnormal and fatigued working conditions of air traffic controllers to avoid human errors.
- *My Work*: Optimize the face keypoints detection model, blink judgement in low light and high angle scene.
- *Result*: Accurately detect blink, head posture and fatigue.

Gaze Correction in Video Call

08/2019 – 12/2019

Algorithm Intern Huawei Technologies Co., Ltd., Beijing, China

- *Task*: Adjust the appearance of eyes so users appear to be looking straight at the camera on a video call.
- *My Work*: Propose a model for automatic correction based on device deflection angle and face-camera distance, reduce the eye jitter by 95% by proposing the evaluation metric.
- *Result*: Will be deployed in upcoming Huawei laptops and mobile phones.

Video Stitching

05/2019 – 08/2019

Project Leader Beijing Electronics Holding Co., Ltd. (BEHC), Beijing, China

- *Task:* Stitch three-way real-time camera videos into one big scene video.
- *My Work:* Reduce color differences after splicing through channel averaging, accelerate the stitching speed 100 times by reducing exchange between memory and GPU.
- *Result:* Achieve real-time stitching with good visual perception.

⚙️ SKILLS

- English: IELTS: 6.5, CET-4: 618, CET-6: 512
- Coding: Python, C++, Matlab
- Framework: Pytorch
- Interests: Photography, Powerpoint

♥️ HONORS

- Huawei Scholarship, 2020
- Graduate Student Travel Award of MICCAI, 2019
- Outstanding Graduate Student of Xidian University, 2018
- National Scholarship, 2016 & 2017
- Interdisciplinary Contest in Modeling - Meritorious Winner, 2016 & 2017

📖 SUMMARY

- I am optimistic and can well connect and understand others.
- I have certain academic and engineering ability, and willing to solve interdisciplinary problems.
- My dream: Be an expert in 10 years.