

EDUCATION

- **Tsinghua University** Beijing, China
Doctor of Philosophy - Biomedical Engineering *Sep 2022 - Present*
advised by Jiahong Dong
- **Sichuan University** Sichuan, China
Bachelor of Engineering - Computer Science and Technology *Sep 2018 - Jun 2022*
GPA: 93.7/100; Ranking: 1/351

EXPERIENCE

- **Sichuan University** School of Computer Science
Undergraduate Student Research Training *Sep 2019 - Jun 2022*
 - **Advisor:** Dr. Shaobing Gao, Dr. Wanzhong Song
 - **Topic:** Computer Vision, Medical Image Processing
- **Tsinghua University** School of Software
Research Assistant *Apr 2021 - Aug 2021*
 - **Advisor:** Dr. Xiangdong Huang, Dr. Zhongyi Pei, Prof. Jianmin Wang
 - **Topic:** Time Series Forecasting, Data Management System
- **Tsinghua University** Department of Biomedical Engineering
Research Assistant *Sep 2021 - Sep 2022*
 - **Advisor:** Dr. Chengquan Li, Prof. Jiahong Dong
 - **Topic:** Health Information System, Medical Image Analysis

PUBLICATION

- **Vision: Siyan Xue, Shaobing Gao, Minjie Tan, Zhen He, and Liangtian He.** 2021. How does Color Constancy Affect Target Recognition and Instance Segmentation? Proceedings of the 29th ACM International Conference on Multimedia. Association for Computing Machinery, New York, NY, USA, 5537–5545. <https://doi.org/10.1145/3474085.3475690>

SKILLS SUMMARY

- **Proficient languages:** C/C++, MATLAB, Python, Golang
- **Deep learning frameworks:** PyTorch, TensorFlow
- **Familiar Tools:** LaTeX, GIT
- **Familiar environment:** Linux, Windows

PROJECTS

- **Understand how Color Constancy Affect High Vision Tasks:** To better understand how incorrect white balance (WB) will affect performance of DNNs in high-level vision tasks, we provide a labeled dataset under different WB and discover that effect of WB on DNNs is greatly associated with object size and occlusion level among objects. Based on these findings, we introduce a new augmentation strategy to improve the performance of SOTA DNNs on images with incorrect WB. This paper is accepted by ACM MM'21.
- **Predict Profile after Orthodontic Treatment:** We have developed a software to predict the profile of patients after orthodontic treatment, based on the Generative Adversarial Network.
- **Benchmark for SOTA time series forecasting deep learning models:** We have created a benchmark tool for time series forecasting methods.

HONORS AND AWARDS

- Comprehensive Scholarship (2%) - Sichuan University - 2019
- China National Scholarship (highest honor scholarship in China) - Ministry of Education of the People's Republic of China - 2020
- Contemporary Undergraduate Mathematical Contest in Modeling 1st Prize - China Society for Industrial and Applied Mathematics - 2020
- Comprehensive Scholarship (2%) - Sichuan University - 2021
- Outstanding Graduate (3%) - Department of Education of the Sichuan Province - 2021