

EDUCATION

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- **Sichuan University** Sichuan, China
Bachelor of Engineering - Computer Science and Technology *Sep 2018 - Jun 2022*
GPA: 93.7/100; Ranking: 1/351

EXPERIENCE

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- **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 - Present*
 - **Advisor:** Dr. Chengquan Li
 - **Topic:** Medical Image Analysis

PUBLICATION

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- **Vison: 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

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

PROJECTS

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- **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.
 - **Diagnosis of Hepatic Hydatid Cyst:** (Work in progress) We are trying to develop a deep-learning-based approach to diagnose Hepatic Hydatid Cyst with metabolomics data and medical image.
 - **Benchmark for SOTA time series forecasting deep learning models:** We have created a benchmark tool for time series forecasting methods.

HONORS AND AWARDS

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- 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