WENTAO BAO

No. 129 Luoyu Rd. ◇ Wuhan, Hubei, P.R.China, 430079
(+86) · 13554051841 ◇ wtbao2018@gmail.com

EDUCATION

Wuhan University *Expected in June 2019*
Master's Degree at School of Remote Sensing & Information Engineering
Major in Photogrammetry & Remote Sensing
Overall GPA: 3.75/4.00

Wuhan University *Sept. 2012 - June 2016*
Bachelor's Degree at School of Remote Sensing & Information Engineering
Major in Remote Sensing Science & Technology
Overall GPA: 3.77/4.00

PUBLICATION

Wentao Bao, Zhenzhong Chen. Human Scanpath Prediction based on Deep Convolutional Saccadic Model. *IEEE Transactions on Neural Networks and Learning Systems* (**TNNLS**), under review, 2018.

Daiqin Yang, **Wentao Bao**. Group Lasso based Band Selection for Hyperspectral Image Classification. *IEEE Geoscience and Remote Sensing Letters* (**GRSL**), vol. 14, no. 12, pp. 2438-2442, Nov. 2017.

Jing Xu, Yaqi Liu, **Wentao Bao**, Xuejing Liu. Vehicle Distance Warning on the Highway Based on Smart Phone Platforms Data Fusion. International Conference on Intelligent Computation Technology and Automation (**ICICTA**), June, 2015.

Zhenzhong Chen, Weihang Liao, Bin Xu, Hongyi Liu, Qisheng Li, He Li, Chao Xiao, Hang Zhang, Yiming Li, **Wentao Bao**, Daiqin Yang. Object Tracking over a Multiple-Camera Network. *IEEE International Conference on Multimedia Big Data* (**BigMM**), Apr. 2015.

Jiangping Chen, **Wentao Bao**, Yaqi Liu. Self-adaption Indoor Parking Navigation and Automatic Parking System and Method based on Bluetooth Low Energy (BLE), **China Invention Patent**, Application No. CN201710791726.5, Publication No. CN107605219A, Publication Date 2018.01.19.

RESEARCH EXPERIENCE

3D Object Detection for Autonomous Driving Apr. 2018 - Present
Graduate Researcher, with Prof. Zhenzhong Chen *Lab. of IIP, WHU*

· Aiming at detecting 2D/3D objects with RGB images and LiDAR point cloud for autonomous driving.
· Designed an end-to-end 3D detector integrating 2D detection and direct point cloud learning method.
· Proposed a novel region-wise feature fusion scheme for RGB images and point cloud data.

Human Scanpath Prediction Sep. 2017 - Mar. 2018
Graduate Researcher, with Prof. Zhenzhong Chen *Lab. of IIP, WHU*

· Aiming at predicting the human scanpath which reveals the dynamic visual attention of human eyes.
· Proposed a deep convolutional saccadic model to simulate the (inhibition of return) IOR process considering on both temporal and spatial association with image content.

Style Harmonization for MODIS Satellite Image Mosaicking Feb. 2017 - Aug. 2017
Graduate Researcher, with Prof. Zhenzhong Chen *Lab. of IIP, WHU*

· Aiming at unifying the holistic style of all satellite images to be mosaicked as a world satellite map.

· Proposed a GAN based style transfer model considering on global colorimetric harmonization and local texture consistency of multiple satellite images.

Band Selection for Hyperspectral Image (HSI) Classification Sept. 2016 - May. 2017
Graduate Researcher, with Prof. Daiqin Yang *Lab. of IIP, WHU*

· Aiming at pixelwise classification and feature selection based dimension reduction for HSI data.
· Proposed a group lasso based band selection (GLBS) model optimized with group lasso regularization and multinomial classification simultaneously.

Pedestrian Detection and Tracking with Surveillance Video July 2015 - Aug. 2016
Undergraduate Intern, with Prof. Zhenzhong Chen *Lab. of IIP, WHU*

· Aiming at solving some key problems in pedestrian detection and tracking tasks for surveillance scenario with deep convolutional neural networks.
· Improved the performances of Faster RCNN for pedestrian detection and STC for pedestrian tracking.

COMPETITION EXPERIENCES

Grand Prize Winner, Salient360! Visual Attention Modeling for 360° Content. July 2018

Third Prize, National Graduate Contest on Smart-City, Abnormal Event Detection. Aug. 2017

Bronze Award, China College Students "Internet Plus" Competition, Hubei Division. Dec. 2016

Second Prize, National Graduate Contest on Smart-City, Abnormal Event Detection. Aug. 2016

First Prize, BigMM 2015 Challenge, Object Tracking over Multiple-Camera Network. Apr. 2015

Third Prize, National Challenge Cup 2015, Special Contest on Smart City. July 2015

Third Prize, National SuperMap Cup 2015, Cloud Platform Development. Dec. 2015

Meritorious Winner, Mathematical Contest in Modeling (MCM). Feb. 2015

Second Prize, National SuperMap Cup 2014, Android Application Development. Dec. 2014

SELECTED HONORS

The First-class Academic Scholarship, Wuhan University. (top 10%) Oct. 2017 and 2018.

Outstanding Postgraduate Student, Wuhan University. (2nd of 53 candidates) Dec. 2017.

The Second-class Graduate Freshman Scholarship, Wuhan University. (top 10%) Oct. 2016

Advanced Individual, Wuhan University. Jan. 2016

SKILLS

Programing Languages	Python, C/C++, Matlab, Java
Libraries	Caffe, TensorFlow, Keras, MatConvNet, OpenCV, GDAL
Language Test	TOEFL: 94, GRE: 311+3.5
Other Skills	Latex, Git, Vim

RESEARCH INTERESTS

Computer Vision, Image Processing, ML/DL Theory, including:

· 2D/3D Object Detection and Tracking, Depth Estimation, Point Cloud Processing.
· Visual Attention Modeling, Style Transfer, Remote Sensing Image Processing.
· Dimension Reduction and Subspace Learning, Un/Semi-supervised Learning.