WENTAO BAO

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EDUCATION

Wuhan University *Expected in June 2019*
M.S. student in School of Remote Sensing & Information Engineering
Major in Photogrammetry & Remote Sensing
Overall GPA: 3.75/4.00

Wuhan University *Sept. 2012 - June 2016*
B.S. student in 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*

· Project aims at detecting 2D and 3D bounding boxes and corresponding class types of objects with RGB images and LiDAR point cloud data for autonomous driving.
· Designed an end-to-end learning model integrating a two-stage 2D object detector and direct point cloud learning method.
· Proposed a novel region-wise feature fusion scheme for RGB images and point cloud data.

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

· Project aims at predicting the human scanpath (sequence of saccades and fixations) under free-viewing condition, which reveals the dynamic visual attention of human eyes.
· Proposed a deep convolutional saccadic model to simulate the widely recognized inhibition of return (IOR) process considering on both temporal dependency and spatial association with image content.
· Experimental results out-perform other state-of-the-art methods with large margin on MIT1003 and FIGRIM benchmark.

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

· Project aims at unifying the holistic style of all satellite images when they are mosaicked to construct a single world satellite map (Many-to-one mapping).
· 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 Classification Sept. 2016 - Dec. 2016
Graduate Researcher, with Prof. Zhenzhong Chen *Lab. of IIP, WHU*

· Project aims at reducing the dimension of hyperspectral data through band selection in application of multi-label hyperspectral image classification.
· Proposed a group lasso based band selection (GLBS) model which is optimized with group lasso regularization and multinomial classification simultaneously.

COMPETITION EXPERIENCES

Grand Prize Winner, ICME 2018 Grand Challenge on Salient360! 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

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

The First-class Academic Scholarship, 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

Computer Languages	Python, C/C++, Matlab, Linux Shell
Libraries	Caffe, TensorFlow, Keras, MatConvNet, OpenCV
Standardized Test	TOEFL: 94, GRE: 311+3.5
Other	Latex, Git, Vim

RESEARCH INTERESTS

Computer Vision, Video Analytics, Image Processing, including:

· 2D/3D Object Detection and Tracking, Abnormal Event Detection, Vehicle Retrieval.
· Visual Attention Modeling, Semantic Segmentation, Image Style Transfer.
· Hyperspectal Images Processing, Remote Sensing Image Classification/Retrieval.
· Machine Learning and Deep Learning Theory.