

WENSHENG CHENG

School of Electronic Information, Wuhan University, Wuhan 430072, China
Email: cwsinwhu@whu.edu.cn Homepage: spritea.github.io Tel: (+86) 15072310469

RESEARCH INTERESTS

Computer vision, machine learning, semantic segmentation

EDUCATION

Wuhan University, Wuhan, China	2017 - present
M.S., Information and Communication Engineering	Grade: 91/100
Advisor: Prof. Wen Yang	

Wuhan University, Wuhan, China	2013 - 2017
B.E., Electronic and Information Engineering	Grade: 87/100, Rank: 4th/120

EXPERIENCE

Signal Processing Lab of Wuhan University, Wuhan, China	2016 - present
Research Assistant	
Advisor: Prof. Wen Yang	
Topic: Semantic segmentation	
- Semantic labeling models for aerial images	
- Lane extraction dataset and models with event cameras	

Wuhan University, Wuhan, China	June 2018
Teaching Assistant for class-Machine Learning and Big Data	
Advisor: Prof. Marcello Pelillo, IEEE Fellow, AE of TPAMI	

DUKE KUNSHAN University, Kunshan, China	July 2017 - Aug 2017
Duke-Tsinghua Machine Learning Summer School	
Advisors: Prof. Lawrence Carin and Prof. Jun Zhu.	

DJI, Shenzhen, China	Nov 2016 - Feb 2017
Research Intern	
Mentor: Shuo Yang	
Topic: Vision algorithms for robocars and UAVs	
- Object tracking based on machine learning methods	
- Distance measurement with visual geometry methods	

Intel Embedded System Design Joint Lab, Wuhan, China	Jan 2016 - July 2016
Team Leader for Embedded System Contest	
Mentor: Yinbo Xie	
Topic: Piano music score recognition algorithm and system software development	

Lab Center of Wuhan University, Wuhan, China	Mar 2015 - Aug 2015
Team Leader for Electronic Design Contest	
Mentor: Xiaoqiao Chen	
Topic: Speed and direction control algorithms for an unstable system	

COMPETITIONS

1. **Ranked 4th nationally**, Building Extraction Track of High-resolution Remote Sensing Image Interpretation Contest, 2018
2. **Ranked 6th internationally**, The International Conference on Robotics and Automation (ICRA) RoboMaster Mobile Manipulation Challenge, 2017
3. **Top 10 internationally**, The International Micro Air Vehicles, Conferences and Competitions (IMAV) Outdoor Competition, 2017
4. **National Second-class Prize**, China Graduate Electronic Design Contest, 2017
5. **National Third-class Prize**, Intel Cup Undergraduate Electronic Design Contest-Embedded System Design Invitational Contest, 2016
6. **The Third-class Prize**, Huazhong Undergraduate Mathematical Modeling Invitational Contest, 2016
7. **The First-class Prize** in Hubei province, National Undergraduate Electronic Design Contest, 2015

PUBLICATIONS

1. **Wensheng Cheng**, Wen Yang, Min Wang, Gang Wang, Jinyong Chen. Context Aggregation Network for Semantic Labeling in Aerial Images. Remote Sensing(IF: 4.118), 2019.
2. Jinwang Wang, Jian Ding, Haowen Guo, **Wensheng Cheng**, Ting Pan, Wen Yang. Mask OBB: A Semantic Attention Based Mask Oriented Bounding Box Representation for Multi-Category Object Detection in Aerial Images. Remote Sensing, 2019.
3. **Wensheng Cheng**, Wen Yang, Youqi Pan, Haowen Guo, Yu Cheng. Context Aggregation Network for Semantic Labeling in Aerial Images. ICIP, 2019.
4. **Wensheng Cheng***, Hao Luo*, Wen Yang, Lei Yu, Shoushun Chen, Wei Li. DET: A High-Resolution DVS Dataset for Lane Extraction. CVPR Workshop, 2019.
5. Huai Yu, Heng Zhang, **Wensheng Cheng**, Wen Yang. An Autonomous Concrete Bridge Inspection System Using Unmanned Aerial Vehicle. ICRA Workshop, 2017.
6. **Wensheng Cheng***, Hao Luo*, Wen Yang, Lei Yu, Wei Li. Structure-Aware Network for Lane Extraction with Dynamic Vision Sensor. IEEE Transactions on Neural Networks and Learning Systems(TNNLS), 2019, under review, second round.
7. Xu Lei, **Wensheng Cheng**, Haowen Guo, Wen Yang. D-SiamRPN: Learning Domain-Aware Siamese Region Proposal Network for Online Visual Tracking. CVPR Main Conference, 2020, under review.
8. Xu Lei, **Wensheng Cheng**, Haowen Guo, Wen Yang. Information Constrained Siamese Region Network for Online Tracking. IEEE Transactions on Pattern Analysis and Machine Intelligence(TPAMI), on preparation.

HONORS

1. **National Scholarship**, Top 0.5%, Best award for students in China, 2019
2. **First-class Academic Scholarship**, Ranked 2nd/500+, 2019
3. **Undergraduate Elite Student**, Wuhan University, 2015
4. **National Undergraduate Innovation Program**, Top 10% teams, 2015
5. **Excellent Engineer Training Program**, Top 36 in 300+ students, 2014