# WENTAO BAO

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[https://cogito2012.github.io/homepage](https://cogito2012.github.io/homepage)

## EDUCATION

**Rochester Institute of Technology**, Rochester, NY, USA — Sept. 2019 - Present
Ph.D. in Computing & Information Sciences
Advisors: Prof. Yu Kong and Prof. Qi Yu

**Wuhan University**, Wuhan, China — Sept. 2016 - June 2019
M.E. in Photogrammetry & Remote Sensing
Advisor: Prof. Zhenzhong Chen and Prof. Daiqin Yang
Overall GPA: 3.75/4.0

**Wuhan University**, Wuhan, China — Sept. 2012 - June 2016
B.S. in Remote Sensing Science & Technology
Overall GPA: 3.72/4.0

## RESEARCH INTERESTS

- Computer Vision: Video Understanding, 2D/3D Object Detection, Visual Explainability.
- Machine Learning: Open Set Recognition, Uncertainty Quantification, Reinforcement Learning.
- Others: Human Visual Attention, Remote Sensing, 3D Vision.

## SELECTED PUBLICATIONS

1. **Wentao Bao**, Junwen Chen, Qi Yu, Yu Kong. OpenTAL: Towards Open Set Temporal Action Localization. IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022.

2. Xinmiao Lin, **Wentao Bao**, Matthew Wright, Yu Kong. Gradient Frequency Modulation for Visually Explaining Video Understanding Models. British Machine Vision Conference (**BMVC**), 2021.

3. **Wentao Bao**, Qi Yu, Yu Kong. Evidential Deep Learning for Open Set Action Recognition. International Conference on Computer Vision (**ICCV**), 2021 (**Oral**).

4. **Wentao Bao**, Qi Yu, Yu Kong. DRIVE: Deep Reinforced Accident Anticipation with Visual Explanation. International Conference on Computer Vision (**ICCV**), 2021.

5. Xiwen Dengxiong, **Wentao Bao**, Yu Kong. Multiple Instance Relational Learning for Video Anomaly Detection. International Joint Conference on Neural Network (**IJCNN**), 2021.

6. **Wentao Bao**, Qi Yu, Yu Kong. Uncertainty-based Traffic Accident Anticipation with Spatio-Temporal Relational Learning. 28th ACM International Conference on Multimedia (**MM**), 2020.

7. Junwen Chen, **Wentao Bao**, Yu Kong. Activity-driven Weakly-Supervised Spatio-Temporal Grounding from Untrimmed Videos. 28th ACM International Conference on Multimedia (**MM**), 2020.

8. Junwen Chen, **Wentao Bao**, Yu Kong. Group Activity Prediction with Sequential Relational Anticipation Model. European Conference on Computer Vision (**ECCV**), 2020.

9. **Wentao Bao**, Qi Yu, Yu Kong. Object-Aware Centroid Voting for Monocular 3D Object Detection. IEEE/RSJ International Conference on Intelligent Robots and Systems (**IROS**), 2020.

10. Hanbin Hong, **Wentao Bao**, Yuan Hong, Yu Kong. Privacy Attributes-aware Message Passing Neural Network for Visual Privacy Attributes Classification. International Conference on Pattern Recognition (**ICPR**), 2020.

11. **Wentao Bao**, Zhenzhong Chen. Human Scanpath Prediction based on Deep Convolutional Saccadic Model. **Neurocomputing**, vol. 404, pp. 154-164, Mar. 2020. (IF: 4.438)

12. **Wentao Bao**, Bin Xu, Zhenzhong Chen. MonoFENet: Monocular 3D Object Detection with Feature Enhancement Networks. *IEEE Transactions on Image Processing* (**TIP**), vol. 29, pp. 2753-2765, Nov. 2019. (IF: 9.340)

13. 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. (IF: 3.833)

## WORK EXPERIENCE

1. Ph.D. intern at **Apple**, 3D Vision Team at Apple Maps, CA USA (Remote), June-August, 2021.

## COMPETITIONS

| | |
|---|---|
| **1st** Prize, **Core Member**, Salient360! Visual Attention Modeling for 360° Content. | July 2018 |
| **3rd** Prize, **Team Leader**, The 4th National Graduate Contest on Smart-City. | Aug. 2017 |
| **Bronze** Award, **Team Leader**, The 2nd China "Internet Plus" Competition (Hubei). | Dec. 2016 |
| **2nd** Prize, **Core Member**, The 3rd National Graduate Contest on Smart-City. | Aug. 2016 |
| **1st** Prize, **Core Member**, BigMM 2015 Challenge, Multiple-Camera Object Tracking. | Apr. 2015 |
| **3rd** Prize, **Team Leader**, The 14th National "Challenge Cup" on Smart-City Track. | July 2015 |
| **3rd** Prize, **Core Member**, The 14th National "SuperMap Cup" on GIS Contest. | Dec. 2015 |
| **Meritorious** Winner, **Core Member**, Mathematical Contest in Modeling (MCM). | Feb. 2015 |
| **2nd** Prize, **Team Leader**, The 13th National "SuperMap Cup" on GIS Contest. | Dec. 2014 |

## SELECTED HONORS

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|---|---|
| Academic Innovation Award for Postgraduate Student, Wuhan University. | Dec. 2020. |
| Excellent Graduated Student, Wuhan University. (top 5%) | May, 2019. |
| **China National Scholarship** for graduate students, | Oct. 2018. |
| The First-class Academic Scholarship, Wuhan University. (top 10%) | Oct. 2017 & 2018. |
| Outstanding Postgraduate Student, Wuhan University. (top 10%) | Dec. 2017 & 2018. |
| Excellent Graduate Freshman Scholarship, Wuhan University. (top 10%) | Oct. 2016 |
| Advanced Individual, Wuhan University. | Jan. 2016 |

## TECH SKILLS

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| **DL/CV Tools** | PyTorch, TensorFlow, Keras, Caffe, MXNet, OpenAI Gym, OpenCV |
| **Programing Languages** | Python, Java, C/C++, MATLAB, Android, Linux Shell |

## ACADEMIC SERVICES

**Conference Reviewer:**

· ECCV (2022), CVPR (2022 & 2021), ICCV (2021), ICRA (2021), ACM MM (2021 & 2020 & 2019), ICWS (2021), MFI (2020).

**Journal Reviewer:**

· IEEE Transactions on Image Processing (TIP).
· IEEE Robotics and Automation Letters (RA-L).
· Journal of Visual Communication and Image Representation (JVCI, Elsevier).
· Information Sciences (Elsevier).
· Journal of Measurement (Elsevier).
· Multimedia System Journal (MMSJ, Springer).
· The Computer Journal (Oxford Academic).

**Memberships:**

· IEEE Student Member
· ACM Student Member.

**Volunteers:**

· 34th AAAI Conference on Artificial Intelligence (AAAI-20), Feb. 7-12, 2020, New York, USA.