

# Jun Wan

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## Research Interests

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Computer Vision, Machine Learning, in particular, Gesture and Action Recognition, Hand Tracking and Segmentation.

## EDUCATION

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Sept. 2009- Oct. 2014 (Expect)	<b>Beijing Jiaotong University</b> School of Computer and Information Technology My current advisor <a href="#">Prof. Qiuqi Ruan</a> Major: Signal and Information Processing Research area: gesture recognition, hand tracking <b>Ph.D</b>	<b>Beijing, P. R. China</b>
Sept. 2008- July. 2009	<b>Beijing Jiaotong University</b> School of Electronic and Information Engineering GPA 89.1/100. Rank: 3/28	<b>Beijing, P. R. China</b>
Sept. 2004- July. 2008	<b>China university of Geosciences (Beijing)</b> School of Geophysics and Geoinformation Systems <b>B.E.</b> GPA: 88.7/100. Rank: 3/70	<b>Beijing, P. R. China</b>

## Honors (selected)

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2013	Best Paper Award from the Institute of Information Science, Beijing Jiaotong University, China
2012	2012 One-Shot-Learning ChaLearn Gesture Challenge Award (3rd Prize) , USA
2008	Olympic Volunteers honor certificate
2007	<b>Meritorious Winner in American Interdisciplinary Contest in Modeling</b> <b>1<sup>st</sup></b> class National Scholarship
2006	<b>2<sup>nd</sup> Prize in Undergraduate Mathematical Contest in Modeling</b> in Beijing Contest District
2005	University-level merit student

## Skills (selected)

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- Intensive experience in: MATLAB; C/C++, MFC;
- Computer Skills: MS Office (Word, Excel, PowerPoint, Visio);
- Interest: Table Tennis; Swimming; Tennis; Badminton;

## Publication

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### Journals:

1. **Jun Wan**, Qiuqi Ruan, Shuang Deng and Wei Li "One-shot Learning Gesture Recognition from RGB-D Data Using Bag of Features", Journal of Machine Learning Research (**JMLR**), pp. 2549-2582, Vol 14, 2013. (SCI, IF: 3.42)
2. **Jun Wan**, Qiuqi Ruan, Wei Li, Gaoyun An and Ruizhen Zhao "3D SMOsIFT: Three-dimensional Sparse Motion Scale Invariant Feature Transform for Activity Recognition from RGB-D Videos", Journal of Electronic Imaging (**JEI**), 23(2), 023017, 2014. (SCI, IF:1.06)
3. **Jun Wan**, Vassilis Athitsos, Pat Jangyodsuk, Hugo Jair Escalante, Qiuqi Ruan, and Isabelle Guyon, "CSMMI:

Class-Specific Maximization of Mutual Information for Action and Gesture Recognition", IEEE Transactions on Image Processing (**TIP**), vol 23(7), pp. 3152-3165, 2014. (SCI, IF: 3.19)

4. **Jun Wan**, Qiuqi Ruan, Wei Li, Yanyan Liang, Gaoyun An, Ruizhen Zhao "The Dynamic Model Embed in Augmented Graph Cuts for Robust Hand Tracking and Segmentation in videos", (under review, SCI), 2014.

5. Wei Li, Qiuqi Ruan, **Jun Wan** "Graph-preserving shortest feature line segment for dimensionality reduction", Neurocomputing, vol 110, pp 80-91, 2013. (SCI, IF:1.634)

6. Wei Li, Qiuqi Ruan, **Jun Wan** "Dimensionality Reduction Using Graph-embedded Probability-based Semi-supervised Discriminant Analysis", Neurocomputing, vol 138, pp 283-296, 2014. (SCI, IF: 1.634)

7. Wei Li, Qiuqi Ruan, **Jun Wan** "Semi-supervised dimensionality reduction using estimated class membership probabilities", Journal of Electronic Imaging, vol 21(4), 043010, 2012. (SCI, IF: 1.06)

8. Wei Li, Qiuqi Ruan, **Jun Wan** "Fuzzy Nearest Feature Line-based Manifold Embedding for Facial Expression Recognition", Journal of Information Science and Engineering, vol 20, no 2, pp 329-346, 2013. (SCI, IF: 0.299)

#### **Conferences:**

9. **Jun Wan**, Qiuqi Ruan, Yingchun Li "A New Method of Automatic Recognition of B-Mode Ultrasound Imaging of Common Carotid Artery in Longitude", Bioinformatics and Biomedical Engineering, 4th International Conference on, pp.1-4, 2010.

10. **Jun Wan**, Qiuqi Ruan, Wei Li "Using two methods for recognition common carotid artery of B-mode longitudinal ultrasound image", Signal Processing, IEEE 10th International Conference on, pp. 1-4, 2010.

11. **Jun Wan**, Qiuqi Ruan, Gaoyun An, Wei Li "Hand tracking and segmentation via graph cuts and dynamic model in sign language videos", Signal Processing, IEEE 11th International Conference on, pp. 1135-1138, 2012.

12. **Jun Wan**, Qiuqi Ruan, Gaoyun An, Wei Li "Gesture recognition based on Hidden Markov Model from sparse representative observations", Signal Processing, IEEE 11th International Conference on, pp. 1180-1183, 2012.

13. Wei Li, Qiuqi Ruan, **Jun Wan** "Two-dimensional uncorrelated linear discriminate analysis for facial expression recognition", Signal Processing (ICSP), IEEE 10th International Conference on, pp. 1362-1365, 2010.

14. Wei Li, Qiuqi Ruan, Gaoyun An, **Jun Wan** "Feature extraction of multimodal data by cluster-based correlation discriminative analysis", Signal Processing (ICSP), IEEE 11th International Conference on, pp. 797-800, 2012.

15. Wei Li, Qiuqi Ruan, Gaoyun An, **Jun Wan** "Discriminative uncorrelated neighborhood preserving projection for facial expression recognition", Signal Processing (ICSP), IEEE 11th International Conference on, pp. 801-805, 2012.

16. Taosheng Zhou, Qiuqi Ruan, **Jun Wan**, Gaoyun An, "Embedded accelerated Gaussian model in graph cuts for automatic hand segmentation", Signal Processing, Communication and Computing, IEEE International Conference on, pp. 1-6, 2013.

#### **Others:**

17. Hugo Jair Escalante, Isabelle Guyon, Vassilis Athitsos, Pat Jangyodsuk, **Jun Wan**, "Principal motion components for gesture recognition using a single-example", arXiv preprint arXiv:1310.4822, 2013.

18. Hugo Jair Escalante, Isabelle Guyon, Vassilis Athitsos, Pat Jangyodsuk, **Jun Wan**, " Principal motion components for one-shot gesture recognition", Journal of Visual Communication and Image Representation, (under review), 2014.

#### **Chinese Patent:**

1. 万军, 阮秋琦, 安高云, 基于 RGB-D 数据构成的少量训练样本的手势识别方法, 中国, 申请号: 201310522370.7

#### **Review for the following journals:**

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IEEE Transactions on Pattern Analysis and Machine Intelligence (IF:4.795): 2013

Journal of Machine Learning Research (IF:3.42): 2012, 2013, 2014