

Jinhua (Andy) MA

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Research Experience

- **Post-Doctoral Fellow** Mar 2016 to Present
Computer Science, Hong Kong Baptist University
- **Post-Doctoral Fellow** Apr 2014 to Dec 2015
Computer Science, Johns Hopkins University (QS Rankings[®] 2016: 17)
- **Post-Doctoral Fellow** Dec 2013 to Apr 2014
Statistics and Biostatistics, Rutgers University
- **Senior Research Assistant** Sep 2013 to Nov 2013
Computer Science, Hong Kong Baptist University

Education

- **Hong Kong Baptist University** Sep 2009 to Aug 2013
Ph.D. in Computer Science
Advisor: [Prof. Pong Chi Yuen](#)
- **Sun Yat-Sen University** Sep 2007 to Jul 2009
M.Sc. in Mathematics
Advisors: [Prof. Pong Chi Yuen](#) and [Prof. Jian-Huang Lai](#)
- **Sun Yat-Sen University** Sep 2003 to Jul 2007
B.Sc. in Mathematics

Research Interests

- **Machine Learning:** Classifier fusion, feature combination, manifold learning, transfer learning, semi-supervised learning, multi-label learning, matrix completion, time series analysis, large-scale learning, multiple instance learning
- **Computer Vision:** Human action recognition, person re-identification, tracking, face image analysis, object categorization, pose estimation, scene understanding
- **Medical applications:** Health care in intensive care units, liver disease classification and prediction

Publications

- **Journals**

1. Andy J Ma¹, Nishi Rawat¹, Austin Reiter, Christine Shrock, Alex Stone, Andong Zhan, Anahita Rabiee, Stephanie Griffin, Dale Needham and Suchi Saria, “Non-Invasive Sensor for Automatic Patient Mobility Measurement,” *Critical Care Medicine*, 2016.
2. Andy J Ma, Pong C Yuen, Jiawei Li and Ping Li, “Cross-Domain Person Re-Identification Using Domain Adaptation Ranking SVMs,” *IEEE Transactions on Image Processing (TIP)*, vol. 24, no. 5, pp. 1599-1613, 2015.
3. Andy J Ma and Pong C Yuen, “Reduced Analytic Dependency Modeling: Ro-

bust Fusion for Visual Recognition,” *International Journal of Computer Vision (IJCV)*, vol. 109, no. 3, pp. 233-251, 2014.

4. Andy J Ma, Pong C Yuen, and Jian-Huang Lai, “Linear Dependency Modeling for Classifier Fusion and Feature Combination,” *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 35, no. 5, pp. 1135–1148, 2013.
5. Andy J Ma, Pong C Yuen, Wilman W W Zou, and Jian-Huang Lai, “Supervised Spatio-Temporal Neighborhood Topology Learning for Action Recognition,” *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, vol. 23, no. 8, pp. 1447–1460, 2013.
6. Xiangyuan Lan, Andy J Ma, Pong C Yuen and Rama Chellappa, “Joint Sparse Representation and Robust Feature-Level Fusion for Multi-Cue Visual Tracking,” *IEEE Transactions on Image Processing (TIP)*, 2015.

- **Conferences**

7. Andy J Ma, Pong C Yuen and Jiawei Li, “Domain Transfer Support Vector Ranking for Person Re-Identification without Target Camera Label Information,” *IEEE International Conference on Computer Vision (ICCV)*, 2013.
8. Andy J Ma and Pong C Yuen, “Reduced Analytical Dependency Modeling for Classifier Fusion,” *European Conference on Computer Vision (ECCV)*, 2012.
9. Andy J Ma and Pong C Yuen, “Linear Dependency Modeling for Feature Fusion,” *IEEE International Conference on Computer Vision (ICCV)*, 2011.
10. Andy J Ma and Ping Li, “Semi-Supervised Ranking for Re-Identification with Few Labeled Image Pairs,” *Asian Conference on Computer Vision (ACCV)*, 2014.
11. Andy J Ma and Ping Li, “Query Based Adaptive Re-Ranking for Person Re-Identification,” *Asian Conference on Computer Vision (ACCV)*, 2014.
12. Andy J Ma, Pong C Yuen, Wilman W W Zou, and Jian-Huang Lai, “Supervised Neighborhood Topology Learning for Human Action Recognition,” *Workshops of IEEE International Conference on Computer Vision (ICCV Workshops)*, 2009.
13. Austin Reiter, Andy J Ma, Nishi Rawat, Christine Shrock and Suchi Saria, “Process Monitoring In The Intensive Care Unit: Assessing Patient Mobility Through Activity Analysis With A Non-Invasive Mobility Sensor,” *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*, 2016.
14. Xiangyuan Lan, Andy J Ma and Pong C Yuen, “Multi-Cue Visual Tracking Using Robust Feature-Level Fusion Based on Joint Sparse Representation,” *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2014.

- **In arXiv**

15. Andy J Ma, Pong C Yuen and Suchi Saria, “Deformable Distributed Multiple Detector Fusion for Multi-Person Tracking,” arXiv:1512.05990, 2015.
16. Frodo KS Chan, Andy J Ma and Pong C Yuen, Terry CF Yip, Yee-Kit Tse, Vincent WS Wong and Grace LH Wong, “Temporal Matrix Completion with Locally Linear Latent Factors for Medical Applications,” arXiv:1611.00800, 2016.

- **In Peer Review**

17. Jiawei Li, Andy J Ma and Pong C Yuen, “Semi-Supervised Neighborhood Metric Learning for Imbalanced Person Re-identification,” submitted to *International Journal of Computer Vision (IJCV)*.

18. Baoyao Yang, Andy J Ma and Pong C Yuen, “Body Parts Synthesize for Cross-Quality Pose Estimation,” submitted to *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*.

Academic Services

- Associate Editor for
Journal of Electronic Imaging
- Reviewer for
IEEE Transactions on Cybernetics, IEEE Transactions on Information Forensics and Security, Pattern Recognition, IEEE Transactions on Human-Machine Systems, Sensors, Optical Engineering
- Research Event
Organizing Committee, Winter School on Biometrics, January 9-13, 2017, Hong Kong Baptist University, Hong Kong

Invited Talks

- Topic: Non-Invasive Sensor for Automatic Patient Mobility Measurement
17th Annual ACCM Research Day, Johns Hopkins Hospital Dec 2015
- Topic: Feasibility of a Non-Invasive Sensor for Measuring ICU Patient Mobility
SCCM’s 44th Critical Care Congress, Phoenix, AZ, US Feb 2015
- Topic: Dependency Modeling for Information Fusion with Applications in Visual Recognition
ICTS regular meeting, Hong Kong Baptist University Apr 2013
- Topic: Supervised Neighborhood Topology Learning for Human Action Recognition
Symposium on Vision and Graphics, Guangzhou, Guangdong, China Nov 2009

Technical Skills

- Programming Skills: Matlab (Proficient), VC++ & C (Advanced), Java (Elementary)
- Strong background in Mathematics

Awards

- Research Postgraduate Scholarship, Hong Kong Baptist University 2011-2012
- Teaching Assistant Performance Award, Hong Kong Baptist University 2010-2011
- Graduate Student Scholarship, Sun Yat-Sen University 2007-2009
- Excellent Student Scholarship, Sun Yat-Sen University 2003-2006
- 1st prize of the Chinese Senior High School Physics Competition 2002-2003
- 3rd prize of the Chinese Senior High School Mathematics Competition 2002-2003

Teaching Experiences

- Teaching Assistant in computer science courses
 - ◊ Information Security Management
 - ◊ Computer and Network Security
 - ◊ Object Oriented Systems Analysis and Design

- ◇ Information and Knowledge Management
- ◇ IT Project Management

Languages

- English (Advanced), Mandarin (Fluent), Cantonese (Native)