

# Jingjing MENG

Davis Hall 304  
Dept. of Computer Science and Engineering  
University at Buffalo, the State University of New York  
Buffalo, NY 14260

Phone: (716) 645-0566  
Email: [jmeng2@buffalo.edu](mailto:jmeng2@buffalo.edu)  
<https://cse.buffalo.edu/~jmeng2/>  
[Google Scholar](#)

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<b>EDUCATION</b>	<b>Nanyang Technological University</b>	Singapore
	<b>Ph.D.</b> Electrical and Electronic Engineering (EEE)	Feb. 2017
	<b>Vanderbilt University</b>	Nashville, TN, US
	<b>M.S.</b> Computer Science	May 2006
	<b>Huazhong University of Science &amp; Technology (HUST)</b>	Wuhan, China
	<b>B.E.</b> Electronics & Information Engineering	July 2003
	The Advanced Class (60 selected from 4,000 freshmen)	

## APPOINTMENTS

<b>Teaching &amp; Research Assistant Professor</b>	04/2018-
University at Buffalo, Computer Science and Engineering Department	Buffalo, NY
<b>Research Fellow</b>	03/2017-03/2018
Nanyang Technological University, School of EEE	Singapore
<b>Research Associate</b>	03/2011-02/2017
Nanyang Technological University, School of EEE	Singapore
<b>Senior Staff Research Engineer</b>	01/2007-12/2010
Applied Research Center, Motorola	Schaumburg, IL
<b>Research Intern</b>	06/2005-09/2005
Vanderbilt Medical Center, Institute of Imaging Science	Nashville, TN
<b>Research Assistant</b>	09/2004-05/2006
Vanderbilt University, Computer Science Dept.	Nashville, TN

**TEACHING EXPERIENCE**      **University at Buffalo**, Computer Science and Engineering      Buffalo, NY  
CSE 410/510 Intro to Computer Graphics      Fall 2019  
CSE191 Discrete Structures      Spring 2019, 2020  
CSE611 MS Project Development      Fall 2018  
CSE199 How the Internet Works      Fall 2018, 2019  
CSE534 Multimedia Systems      Spring 2018- 2020

**Vanderbilt University**, Computer Science Dept.      Nashville, TN  
**Teaching Assistant**      09/2003-05/2006  
CS 101: Programming & Problem Solving  
CS 258: Computer Graphics  
CS 231: Computer Organization

**AWARDS AND HONORS**      **Best Paper Award of IEEE Trans. on Multimedia (T-MM)**      2016  
**Doctoral Consortium with Travel Award, Comp. Vision & Pattern Recog. (CVPR)**      2016  
**Graduate Student Scholarship**, Vanderbilt University      2003-2006  
**Outstanding Student**, HUST (top 0.5%)      2000-2002  
**First-class Freshman Scholarship**, HUST      1999

**GRANTS**      **Co-PI**: Real-time Object Retrieval in Large Scale Video Data, Infocomm Development Authority of Singapore (IDA), August 2013-Dec 2013, S\$ 430,000  
**Co-PI**: Abnormal Video Event Detection for Traffic Safety, NTU/NUS-JSPS Joint Research Project Grant, April 2012 - March 2014, S\$ 76,000

**JOURNAL ARTICLES**      T. Yu, J. Meng, C. Fang, H. Jin, and J. Yuan, "Product quantization network for fast visual search", International Journal of Computer Vision (IJCV), 2020.

M. Yan, J. Meng, C. Zhou, Z. Tu, YP Tan, and J. Yuan, "Detecting spatiotemporal irregularities in videos via a 3D convolutional autoencoder", Journal of Visual Commun. and Image Representation (JVCI), 2020.

W. Hong, X. Tang, J. Meng, and J. Yuan, "Asymmetric mapping quantization for nearest neighbor search", IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2019.

J. Zhang, Z. Wang, J. Meng, YP Tan, and J. Yuan, "Boosting positive and unlabeled learning for anomaly detection with multi-features", IEEE Transactions on Multimedia (T-MM), 2019.

J. Meng, S. Wang, H. Wang, J. Yuan, and YP Tan, "Video summarization via multi-view representative selection", IEEE Transactions on Image Processing (T-IP), 2018.

S. D. Bhattacharjee, J. Yuan, Y. Huang, J. Meng, and L. Duan, "Query adaptive multi-view object instance search and localization using sketches", IEEE Trans. on Multimedia (T-MM), 2018.

J. Meng, J. Yuan, J. Yang, G. Wang, and YP Tan, "Object instance search in videos via spatio-temporal trajectory discovery", IEEE Transactions on Multimedia (T-MM), 2016.

Y. Jiang, J. Meng, J. Yuan, and J. Luo, "Randomized spatial context for object search", IEEE Transactions on Image Processing (T-IP), 2015.

Z. Ren, J. Yuan, J. Meng, and Z. Zhang, "Robust part-based hand gesture recognition using Kinect sensor", IEEE Trans. on Multimedia (T-MM), 2013. (2016 IEEE Trans. on Multimedia Best Paper Award)

J. Yuan, J. Meng, Y. Wu, and J. Luo, "Mining recurring events through forest growing", IEEE Trans. on Circuits and Systems for Video Technology (TCSVT), 2008.

A. Mishra, Y. Lu, J. Meng, A. W. Anderson, and Z. Ding, "Unified framework for anisotropic interpolation and smoothing of diffusion tensor images", NeuroImage, 2006.

## CONFERENCE PAPERS

Z. Weng, J. Meng, Z. Ding, and J. Yuan, "S3F: a multi-view slow-fast network for Alzheimer's disease diagnosis", IEEE International Conference on Multimedia and Expo. (ICME), 2020.

S. Wang, J. Meng, J. Yuan, and YP Tan, "Joint representative selection and feature learning: a semi-supervised approach", IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2019.

T. Yu, J. Meng, and J. Yuan, "Multi-view harmonized bilinear network for 3D object recognition", IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2018 (Spotlight).

W. Hong, J. Meng, and J. Yuan, "Distributed composite quantization", AAAI Conference on Artificial Intelligence (AAAI), 2018 (Oral).

W. Hong, J. Meng, and J. Yuan, "Tensorized projection for high-dimensional binary embedding", AAAI Conference on Artificial Intelligence (AAAI), 2018.

T. Yu, J. Meng, and J. Yuan, "Is my object in this video? Reconstruction-based object search in video", International Joint Conference on Artificial Intelligence (IJCAI), 2017.

J. Meng, H. Wang, J. Yuan, and YP Tan, "From keyframes to key objects: video summarization by representative object proposal selection", IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016.

J. Meng, J. Yuan, G. Wang, and YP Tan, "Fast object instance search in videos from one example", IEEE International Conference on Image Processing (ICIP), 2015.

J. Meng, J. Yuan, G. Wang, and J. Xu, "Object instance search in videos", Intl. Conf. on Information, Communication and Signal Processing (ICICS), 2013.

Y. Jiang, J. Yuan, and J. Meng, "Rapid object search engine for contextual advertisement", ACM International Conference on Multimedia (ACM MM), 2012 (Demo).

Y. Jiang, J. Meng, and J. Yuan, “Randomized spatial context for object search”, IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2012.

Z. Ren, J. Meng, and J. Yuan, “Depth camera based hand gesture recognition and its applications in human-computer-interaction”, Intl. Conf. on Information, Communication and Signal Processing (ICICS), 2011 (invited oral paper).

Z. Ren, J. Meng, J. Yuan, and Z. Zhang, “Robust hand gesture recognition with Kinect sensor”, ACM International Conference on Multimedia (ACM MM), 2011 (Technical Demo).

Y. Jiang, J. Meng, and J. Yuan, “Grid-based local feature bundling for efficient object search”, IEEE International Conference on Image Processing (ICIP), 2011 (Oral).

J. Meng, J. Yuan, Y. Jiang, N. Narasimhan, V. Vasudevan, and Y. Wu, “Interactive visual object search through mutual information maximization”, ACM International Conference on Multimedia (ACM MM), 2010.

J. Meng, J. Yuan, M. Hans, and Y. Wu, “Mining motifs from human motion”, Eurographics, 2008. ([Videos](#))

J. Yuan, W. Wang, J. Meng, Y. Wu, and D. Li, “Mining repetitive clips through finding continuous paths”, ACM International Conference on Multimedia (ACM MM), 2007.

B. Bodenheimer, J. Meng, H. Wu, G. Narasimham, B. Rump, T. P. McNamara, T. H. Carr, and J. J. Rieser, “Distance estimation in virtual and real environments using bisection”, Symposium on Applied Perception in Graphics and Visualization (APGV), 2007.

J. Meng, J. J. Rieser, and B. Bodenheimer, “Distance estimation in virtual environments using bisection”, Symposium on Applied Perception in Graphics and Visualization (APGV), 2006.

## **PATENTS**

“System and Method for Large Scale Visual Object Search”, US provisional patent application, filed 05/2012.

“System and Method for Robust Hand Gesture Recognition Using Commodity Depth Sensor”, US provisional patent application, filed 10/28/2011.

“Method for Selecting an Avatar in a Virtual Scene from a Mobile Terminal”, US 2011/0239115 A1, filed 03/26/2010

“Method and Apparatus for Collaborative Design of an Avatar or Other Graphical Structure”, US 2009/0254832 A1, filed 04/03/2008.

<b>SERVICE AND MEMBERSHIP</b>	<b>IEEE Senior Member</b>	
	<b>Associate Editor</b>	
	IEEE Trans. on Circuits and Systems for Video Technology (T-CSVT)	2019-
	The Visual Computer (TVCJ)	2017-
	<b>Area Chair</b>	
	IEEE Conf. on Multimedia and Expo. (ICME)	2019
	IEEE Conf. on Image Processing (ICIP)	2018-
	<b>Finance Chair</b>	
	IEEE Conf. on Visual Communications and Image Processing (VCIP)	2015
	<b>Technical Committee Member</b>	
	IEEE CAS Visual Signal Processing and Commu. Technical Committee	2020-
	IEEE Image, Video, and Multimedia Signal Processing Technical Committee	2019-
	IEEE CAS Multimedia Systems and Applications Technical Committee	2018-
	<b>Technical Program Committee Member</b>	
IEEE Conf. on Computer Vision & Pattern Recognition (CVPR)	2017-	
ACM International Conference on Multimedia (ACM MM)	2018	