

HONGJUN JIA

CONTACT	Department of ECE The Ohio State University 2015 Neil Ave, 205 Drees Lab, Columbus, OH 43210, USA.	Phone: (614)260-0696(C), (614)292-7104(O) Email: jia.22@osu.edu Fax : (614)292-7596 Homepage: http://www.ece.osu.edu/~jiah/
RESEARCH INTERESTS	Computer vision including object detection/recognition and multiple view geometry Statistical pattern recognition including object classification and support vector machines Image/video processing including video/image analysis, medical image processing and video coding	
EDUCATION	THE OHIO STATE UNIVERSITY, COLUMBUS, OHIO, USA • Ph.D. candidate, Department of Electrical and Computer Engineering • Advisor: Prof. Alex M. Martinez • Thesis: A study of the missing data problems in 3D structure reconstruction and 2D face recognition • GPA: 4.0/4.0 08/2004 - 03/2009	
	TSINGHUA UNIVERSITY, BEIJING, CHINA • M.E. (with honor), Electrical Engineering • Advisor: Prof. Li Zhang • Thesis: Fast Block Matching Motion Estimation Algorithm Based on Search Pattern for Video Coding (Award of Best Master Thesis) • GPA: 86/100 08/2001 - 07/2004	
	TSINGHUA UNIVERSITY, BEIJING, CHINA • B.E. (with honor), Electrical Engineering • Thesis: Data Transmission on Digital Set-top Box • GPA: 89/100 08/1997 - 07/2001	
RESEARCH EXPERIENCE	DEPT. OF ECE, THE OHIO STATE UNIVERSITY RESEARCH ASSISTANT Advisor: Prof. Alex M. Martinez, Computational Biology and Cognitive Science Lab • Face recognition with occlusions • 3D object reconstruction with missing data • Image segmentation COLUMBUS, OH, USA 08/2004 - 03/2009	
	DEPT. OF EE, TSINGHUA UNIVERSITY RESEARCH ASSISTANT Advisor: Prof. Li Zhang, Digital Video and Intellectual Surveillance Lab • Block motion estimation in video coding • Robust edge detection in medical images • TV set-top-box BEIJING, CHINA 11/2000 - 07/2004	
	JINAN HONGFAN TECHNOLOGY CO. SUMMER INTERN • Tool-Kit on Carving Machine JINAN, CHINA 07/2003 - 09/2003	
	INSTITUTE OF AUTOMATION, CHINESE ACADEMY OF SCIENCES SUMMER INTERN • Edge Detection and Image Enhancement on Medical Imaging Processing BEIJING, CHINA 07/2002 - 09/2002	
	TSINGHUA TONGFANG CO. LTD. EMBEDDED SYSTEM ENGINEER • Loader - Download and Caption Display System on DVB-based Set-Top-Box BEIJING, CHINA 05/2000 - 07/2001	
	INSTITUTE OF CONTROL ENGINEERING OF BEIJING SOFTWARE ENGINEER • Simulation System of Electronic Components and Analog Circuit BEIJING, CHINA 07/2000 - 08/2000	

TEACHING
EXPERIENCE

DEPT. OF ECE, THE OHIO STATE UNIVERSITY
TEACHING ASSISTANT

COLUMBUS, OH, USA
09/2005 - 06/2007

- ECE 206 - Switch Circuit Laboratory (instructor)
- ECE 351 - Systems and Signals I

DEPT. OF EE, TSINGHUA UNIVERSITY
TEACHING ASSISTANT

BEIJING, CHINA
03/2001 - 07/2001

- Digital Image Processing

PUBLICATIONS

- Journal Publications
 - **Hongjun Jia** and Aleix Martinez, “Low-Rank Matrix Fitting Based on Subspace Perturbation Analysis with Applications to Structure from Motion”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*. (Accepted, 2008)
 - **Hongjun Jia** and Li Zhang, “Directional Diamond Search Pattern for Fast Block Motion Estimation”, *IEE Electronics Letters*, Vol. 39, No. 22, pp. 1581-1583, 30 Oct. 2003.
- Conference Publications
 - **Hongjun Jia** and Aleix Martinez, “Support Vector Machines in Face Recognition with Occlusions”, accepted by the *IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2009)*.
 - **Hongjun Jia** and Aleix Martinez, “Face Recognition with Occlusions in the Training and Testing Sets”, in Proc. of the *8th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2008)*, Amsterdam, The Netherlands, Sep. 2008.
 - **Hongjun Jia**, Jeff Fortuna and Aleix Martinez, “Perturbation Estimation of the Subspaces for Structure from Motion with Noisy and Missing Data”, in Proc. of the *Third International Symposium on 3D Data Processing, Visualization and Transmission*, pp. 1101-1107, Chapel Hill, NC, Jun. 2006. [NSF award, oral report]
 - **Hongjun Jia** and Li Zhang, “A New Cross Diamond Search Algorithm for Block Motion Estimation”, in Proc. of the *IEEE International Conference on Acoustics, Speech, and Signal Processing 2004 (ICASSP 2004)*, Vol. 3, pp. 357-360, Montreal, Quebec, Canada, May. 2004.
 - **Hongjun Jia** and Li Zhang, “One-pixel Wide Edge Detection Algorithm Based on Local Accumulative Histogram”, in Proc. of *SPIE - The Second International Conference on Image and Graphics 2002 (ICIG 2002)*, Vol. 4875, pp. 283-290, Hefei, Anhui, China, Aug. 2002. [Oral report]
- Technical Reports (Not peer reviewed)
 - **Hongjun Jia** and Li Zhang, “Directional Cross Diamond Search Algorithm for Fast Block Motion Estimation”, arXiv:0806.0689v1 [cs.CV], 2008.
 - **Hongjun Jia** and Aleix Martinez, “Robust Projective Structure from Motion with Noisy and Missing Data Using Subspace Perturbation Analysis”, The Ohio State University, 2005.
 - **Hongjun Jia**, “Loader - Download and Display System on ST5512-based Set-top-box”, Tsinghua University and Tsinghua Tongfang Co. Ltd., 2001.

ACADEMIC SERVICES

- Reviewer of Journals
 - IEEE Transactions on Pattern Analysis and Machine Intelligence (*T-PAMI*)
 - IEEE Transactions on Information Forensics and Security (*T-IFS*)
 - Image and Vision Computing (*IVCJ*)
 - Journal of Zhejiang University-SCIENCE A (*JZUS-A*)
 - IEE Proc. Vision, Image and Signal Processing (*VIS*)
 - Journal of Computer Applications
 - Journal of Electronics & Information Technology
- Reviewer of Conferences
 - IEEE Conf. on Computer Vision and Pattern Recognition (*CVPR*) '06, '07, '08, '09
 - European Conf. on Computer Vision (*ECCV*) '06, '08
 - Int'l Conf. on Pattern Recognition (*ICPR*) '08
 - Int'l Conf. on Intelligent Computing (*ICIC*) '08
 - First IEEE Workshop for Human Communicative Behavior Analysis (*CVPR4HB*) '08
 - Canadian Conf. on Computer and Robot Vision '06, '07
 - IEEE Int'l Conf. on Computer Vision (*ICCV*) '07
 - IEEE First Int'l Conf. on Biometrics: Theory, Applications and Systems (*BTAS*) '07
 - Int'l Conf. on Informatics in Control, Automation and Robotics (*ICINCO*) '06
 - First Int'l Workshop on Video Processing for Security (*VP4S*) '06
 - IEEE Workshop on Vision for Human-Computer Interaction (*V4HCI*) '05

MEMBERSHIP OF
ACADEMIC
SOCIETIES

- Full Member, Sigma Xi, the honorary scientific research society
- Member, the honor society of Phi Kappa Phi
- Student Member, IEEE, IEEE Circuits and Systems / Signal Processing Society '03-'08
- Student Member, Association for Computing Machinery '08

HONORS AND
AWARDS

- Distinguished University Fellowship of The Ohio State University '04 '08
- National Science Foundation Student Travel Grant for the 3rd Int'l Symposium on 3DPVT '06
- Best Master's Thesis Award of Tsinghua University '04
- Outstanding Graduate Student Scholarship of Tsinghua University '03
- Graduate Student Scholarship of Tsinghua University '02
- Outstanding Student Scholarship of Tsinghua University '01
- Innovation Scholarship of Jinling Cup of Tsinghua University '00
- Third Prize of Mathematical Modeling Competition of Tsinghua University '00
- Chang Jiong Scholarship of Department of EE '00
- Outstanding Undergraduate Student Scholarship of Department of EE '99
- ESS Fellowship of Outstanding Undergraduate Student of Tsinghua University '98
- Member of National Training Team for Intl. Math. Olympics '97 (20 from entire China) '97
- Distinguished Student of the Year (10 from Liaoning Province, China) '96

COMPUTER SKILLS

- Programming: proficient in C/C++, Matlab, hands-on experience on OpenGL, OpenCV, Java, Assembly Language;
- Computer: familiar with MS DOS, Windows, MS Office, AutoCAD, HTML, L^AT_EX.

REFERENCES

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 Associate Professor
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