Resume of Yuxiao Hu

Personal Data

Name	Hu Yuxiao	**Gender**	Male	**Date of Birth**	Aug.10
Education Level	Master of Science in CS Phd. degree expected in Aug. 2008	**Major**	Computer Science & Tech.		
Interest Field	Computer Vision , Pattern Recognition and human-computer interface				
Email address	Hu3@uiuc.edu, yuxiaohu@msn.com	**Tel. No.**	Mobile: (217) 299-1790 Office: (217) 244-4472		

Education

Aug. 2004 ~ Now	Phd Candidate in ECE Department, UIUC
Sept. 1999 ~ Jul. 2001	Graduate of the Dept. of Computer Sci. and Tech., Tsinghua University, M. S. Degree expected in June 2001, GPA: 87/100
Sept. 1994 ~ Jul. 1999	Undergraduate of the Dept. of Computer Sci. and Tech., Tsinghua University, B. E. Degree in July 1999, GPA: 83/100

Research Experience

Aug.04 ~ Now	**University of Illinois at Urbana-Champaign** **Image Formation & Processing Group** **Technical Advisor: Professor Thomas S. Huang**
Jan.08 ~ Now	**Project:** Event Detection Task in TRECVID2008 **Contribution:** One of the three team members, data analysis, algorithm design and implementation.
Dec.07 ~ Feb. 08	**Project:** Personalized Emotive Avatar **Contribution**: One of the two team members, we reconstruct a personalized 3D face with teeth/tongue model and animate it with emotive speech, paper submitted to ICME2008
Sep.07 ~ Nov.07	**Project:** subjective experiments on gender/ethnicity recognition **Contribution:** I designed and implemented the subjective experiments to test the human capabilities on gender/ethnicity recognition by 1D silhouette, 2D texture and 3D face. Paper submitted to ICIP2008
Apr. 07 ~ Now	**Project:** 3D Dynamic Face Data Collection System **Contribution:** Project Leader, system (both hardware and software) design and implementation, data collection, paper published in ICASSP08
May.07~Aug.07	**NEC Laboratories America, Cupertino, CA** **Information Analysis & Management Group, Summer Intern**
	Project: Human Action Recognition in Shopping Mall **Contribution:** Design and implement the algorithm/demo to detect the customer actions in shopping mall, paper submitted to CVPR2008
Jan.06. ~ Mar. 06	**Project: CHIL Evaluation:** Face Pose Estimation in Multi Camera Video **Contribution:** One of the two team members, Data analysis, Algorithm design and implementation, System Tuning. We got No.1 in the task, paper published in CLEAR07
Jan.06. ~ Mar. 06	**Project: CHIL Evaluation:** Face Pose Estimation in Static Images **Contribution:** One of the three team members, Data analysis, Algorithm design and implementation, System Tuning. We got No.2 in the task, paper published in CLEAR07
Aug.05 ~ Aug.07	**Project:** 3D Face Model Reconstruction

Resume of Yuxiao Hu

	Contribution: Data collection, labeling and analysis, paper published in MCAM07
Oct.04.~ Oct.06	**Project:** Emotion Recognition in interview video **Contribution:** Data analysis, Algorithm design and implementation, paper published in ACM MM06, ICMI2007
Apr.05 ~ Jun.05	**Project: VACEII Evaluation:** Real-time Multi-view Face Detection in Video **Contribution:** One of the two team members, Data collection and labeling, algorithm design and implementation, system implementation and result evaluation, paper published in LNCS
May.05~Aug.05	**IBM T. J. Watson Research Center, New York** **Intelligent Media Interaction Group, Summer Intern**
	Project: Multimedia Information Retrieval System **Contribution:** Design and implement the algorithm and web interface of multimedia information retrieval for crude oil price prediction
Aug.01 ~ Aug.04	**Microsoft Research, Asia** **Media Computing Group, Assistant Researcher**
Jan.04 ~ Aug.04	**Project:** Face Annotation in Home Photo Album **Contribution:** Design and implement the algorithm and system for batch face annotation. The system was released in Windows (Longhorn); Paper published in ACM MM2004
May. 03~ Jan.04	**Project:** 2D Face Recognition Algorithm: Locality Preserving Projection **Contribution:** Design and implemented LPP algorithm for 2D face recognition. Paper published in ICCV2003, Transaction on PAMI2005
Aug. 03~ Nov. 03	**Project:** 3D Face Reconstruction for multi-view face recognition **Contribution**: Design and implement the system framework and the face recognition algorithm on PCA, LDA, KPCA, KDA;The demo system was elected to Microsoft TechFest 2004 and shown in ECCV2004, paper published in FG2004
Aug. 02 ~ Mar. 03	**Project:** Real-time Face Tracking and Pose Estimation **Contribution**: Project leader, design and implement the system framework; implement and optimize SSD face tracking and pose estimation algorithm, The demo system was elected to Microsoft TechFest 2003, paper published in FG2004
Aug. 01 ~ Apr. 02	**Project:** Real-time Multi-view Face Detection, Alignment and Recognition **Contribution**: Design and implement the recognition/enrollment modular; implement and optimize the face detector; basic mathematic, graphic library for whole system, The demo system was elected to Microsoft TechFest 2002 and attend CVPR2001 Demo session, paper published in CVPR2001, Transaction on CSVT2003
Sep. 99 ~ July 01	**Tsinghua University, Beijing, China** **State Key Lab of AI, Graduate Student**
May.00 ~ May. 01	**Project**: On-line Chinese Character Recognition System **Contribution**: Independently accomplished the design and implementation of the whole system
Sep.00 ~ Oct. 00	**Project:** Intelligent Digital Chinese Input Method **Contribution:** Implementation on Windows, one of two core programmers
Sep. 00 ~ May 00	**Project**: Intelligent Information Collection System on the Web **Contribution**: Design and implementation, one of four core programmers.
Dec.99~ Aug. 00	**Project**: Website of China You Com. (www.chinayou.com) **Contribution:** Designed and implemented the application layer, Leader of develop team, Participated in the design of framework for the whole system
May.99 ~ Oct. 00	**Project:** Medical Record Management System

Resume of Yuxiao Hu

Contribution: Independently accomplished the design and implementation of the whole system

Extracurricular activities

Oct. 00 ~ July.01	**Organization:** Graduate Academic Forum of State Key Lab of AI
	Principalship: secretary-general
Nov. 99 ~ Oct.00	**Organization**: Graduate Class 43 in Department of Computer Sci. & Tech.
	Principalship: monitor
Sep. 97 ~ Jul.98	**Organization:** Students' Union of Tsinghua Univ.
	Principalship: Leader of the proposal department
Mar.96 ~ Jul.98	**Organization:** Information Technology Association of Tsinghua Univ.
	Principalship: founder, vice-chairman ,Leader of the project department
Sep. 94 ~ Jul.96	**Organization:** Class 43 in Department of Computer Sci. & Tech.
	Principalship: monitor
Sep. 92 ~ Jul.93	**Organization:** Student's Union of No.23 High School
	Principalship: President

Publications

Conference Papers:
- **Y.X. Hu,** H. Tang, T.S. Huang, Camera and Microphone Array for 3D AUDIOVISUAL Face Data Collection, The 33rd International Conference on Acoustics, Speech, and Signal Processing (ICASSP2008)
- C.X. Zhou, **Y.X. Hu**, Y. Fu, Y.M. Wang, T.S. Huang, 3D Shape Analysis Using Hybrid Permutation Tests, ICASSP2008
- **Y.X. Hu**, Z.Q. Zhang, X. Xu, Y. Fu, Building Large Scale 3D Face Database for Face Analysis, Multimedia Content Analysis and Mining International Workshop, (MCAM 2007)
- **Y.X. Hu**, L.L. Cao, S.C. Yan, F.J. Lv, Y.H. Gong, T.S. Huang, Event Detection with Spatial and Temporal Ambiguities, Submitted to International Conference on Computer Vision and Pattern Recognition (CVPR2008);
- **Y.X. Hu**, Y. Fu, U. Tariq, T.S. Huang, Subjective Experiments on Gender and Ethnicity Recognition from Different Face Representations, submitted to the 15th The International Conference on Image Processing (ICIP2008)
- H.Z. Ning, **Y.X. Hu**, T.S. Huang, Efficient Initialization of Mixtures of Experts for Human Pose Estimation, submitted to ICIP2008
- **Y.X. Hu**, T.S. Huang, Subspace Leanring for Human Head Pose Estimation, submitted to IEEE International Conference on Multimedia & Expo, (ICME2008)
- **Y. X. Hu**, Z.H. Zeng, L.J. Yin, X.Z. Wei, T.S. Huang, A Study of Non-frontal-view Facial Expression recognition, Submitted to ICME2008;
- H. Tang, **Y.X. Hu**, Y. Fu, M. Hasegawa-Johnson, T.S. Huang, Real-Time Conversion from a Single 2D Face Image to a 3D Text-driven Emotive Audio/Visual Avatar, submitted to ICME2008
- Z.Q. Zhang, **Y.X. Hu**, M. Liu and T.S. Huang, Head Pose Estimation in Seminar Room using Multi View Face Detectors, in Proceedings of the CLEAR06, Springer LNCS series
- J.L. Tu, Y. Fu, **Y.X. Hu**, T.S. Huang, Evaluation of Head Pose Estimation for Studio Data. CLEAR 2006
- Z.H. Zeng, **Y.X. Hu**, M. Liu, Y. Fu, T.S. Huang, , Training Combination Strategy of Multi-stream Fused HMM for Audio-visual Affect Recognition, the 14th ACM International Conference on Multimedia (ACM MM2006)
- Z.H. Zeng, **Y.X. Hu**, Y. Fu, T. S. Huang, G. I. Roisman, Z. Wen: Audio-visual emotion recognition in adult attachment interview. ICMI 2006

Resume of Yuxiao Hu

- Z.Q. Zhang, **Y.X. Hu**, T.L. Yu, T.S. Huang, "Minimum Variance Estimation of 3D Face Shape from Multi-view", the 7th International Conference on Automatic Face and Gesture Recognition (FGR2006)
- H.Z. Ning, Tony X. Han, **Y.X. Hu**, Z.Q. Zhang, Y. Fu and T. S. Huang, A Real-time Shrug Detector, FGR2006
- Z.H. Zeng, Y. Fu, Glenn I. Roisman, Z. Wen, **Y.X. Hu** and T. S. Huang, One-Class Classification for Spontaneous Facial Expression Analysis, FGR2006
- **Y.X. Hu**, L.B. Chen, Y. Zhou, H.J. Zhang, "Estimating Face Pose by Facial Asymmetry and Geometry", FGR2004
- **Y.X. Hu**, D.L. Jiang, S.C. Yan, H.J. Zhang, "Automatic 3D Reconstruction for Face Recognition", FGR2004
- **Y.X. Hu**, S.C. Yan, D.L. Jiang, Y. Zhou, "Personalized 3D Face Model Reconstruction from Single Image", The 8th European Conference on Computer Vision (ECCV 2004) Demo Summary
- L. Zhang, **Y.X.Hu**, M.J Li, W.Y. Ma, H.J Zhang, "Efficient Propagation for Face Annotation in Family Albums", (ACM MM2004)
- S.C. Yan, **Y.X. Hu**, X.F. He, "Discriminant Analysis on Embedded Manifold", ECCV 2004
- Y. Zhou, L. Zhang, **Y.X. Hu**, H.J. Zhang, "Robust Face Alignment", IEEE Intl. Conf. on Computer Vision 2003 (ICCV2003) Demo Summary
- X.F. He, S.C. Yan, **Y.X. Hu**, H.J. Zhang, "Spectral Analysis for Face Recognition", Asia Conference on Computer Vision 2004 (ACCV2004)
- X.F. He, S.C. Yan, **Y.X. Hu**, H.J. Zhang, "Learning a Locality Preserving Subspace for Visual Recognition", ICCV 2003
- L.B. Chen, L. Zhang, **Y.X. Hu**, M.J. Li, H.J. Zhang, "Head Pose Estimation using Fisher Manifold Learning" ICCV2003 Workshop on RATFG 2003
- S.Z. Li, X.L. Zou, **Y.X. Hu**, Z.Q. Zhang, S.C. Yan, X.H. Peng, L. Huang, H.J. Zhang. "Real-Time Multi-View Face Detection, Tracking, Pose Estimation, Alignment, and Recognition". CVPR 2001 Demo Summary

Journal Papers:
- Z.H. Zeng, **Y.X. Hu**, G. I. Roisman, Z. Wen, T. S. Huang, Audio-visual Spontaneous Emotion Recognition (Invited submission), Lecture Notes in Artificial Intelligence for Human Computing, 2007.
- S. Yan, **Y.X. Hu**, D. Xu, H. Zhang, B. Zhang, Q. Cheng. "Nonlinear Discriminant Analysis on Embedded Manifold", IEEE Transactions on Circuits and Systems for Video Technology (TCSVT2006).
- Z.H. Zeng., Y. Fu, G.I. Roisman, Z. Wen, **Y.X. Hu**, and T.S. Huang, Spontaneous Emotional Facial Expression Detection. Journal of Multimedia, 2006 1(5): 1-8. (JMM2005)
- D.L. Jiang, **Y.X. Hu**, S.C. Yan, H.J. Zhang, "Efficient 3D Reconstruction for Face Recognition", Journal of Pattern Recognition, Special Issue on Image Understanding for Digital Photographs, 2005 (PR2005)
- X.F He, S.C Yan, **Y.X Hu**, H.J Zhang, "Laplacian Face for Face Recognition", IEEE Trans. of Pattern Analysis and Machine Intelligence (TPAMI2005),
- S.C Yan, X.F. He, **Y.X. Hu**, H.J. Zhang, M.J. Li, Q.S. Cheng, "Bayesian Shape Localization for Face Recognition Using Global and Local Textures", IEEE Transactions on Circuits and Systems for Video Technology, 2003 (TCSVT2003)

Patent:
- **Y.X. Hu**, L. Zhang, M.J. Li, H.J. Zhang, US Patent Pending: "Head Pose Assessment Methods and Systems"
- D.L. Jiang, H.J. Zhang, L. Zhang, S.C. Yan, **Y. X. Hu**, US Patent Pending: "Method and System for Constructing a 3D Representation of a Face from a 2D Representation"
- L. Zhang, M.J. Li, W.Y. Ma, Y.F. Sun, **Y.X. Hu**, US Patent Pending: "Efficient Propagation For Face Annotation"

Resume of Yuxiao Hu

Academic Services

Program Committee Member: CVPR2008, ICCV2007

Reviewer:

    Journals: TPAMI, TCSVT, TIP, PR, JCST, etc.

    Conferences :

        ACM Multimedia, ACM MIR, ACM CIVR, etc

        IEEE FG, CVPR, ICCV, etc.

        EuroGraphics, BMVC, MCAM, etc.

Programming Languages

C, C++, Pascal, Java, SQL, JSP, HTML, JavaScript, etc.

Honors

2000 ~ 2001	Tsinghua-WangShan-WangJiarong Scholarship
1995 ~ 1996	Legend Scholarship
1994 ~ 1995	Motorola Scholarship
1994	Matriculation Scholarship: No.6 in Henan Province