

Curriculum Vitae

Huan Xu

Contact Information



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Education

University of Science & Technology of China (USTC), Department of Automation

Master of Pattern Recognition and Intelligent Systems, degree expected: September 2009

Academic Adviser: Prof. De-Shuang Huang

Thesis topic: Research on Key Technologies of Segmenting Plant Leaf Images with
Complicated Background Based on Level Set Method

GPA (Elementary): **3.61/4.0** or **90.25/100**

**Central China Normal University (CCNU), Department of Computer Science &
Department of Mathematics and Applied Mathematics**

Double bachelor of Computer Science & Mathematics and Applied Mathematics, July
2006

Thesis topic: A New Adaptive Mutation Dissipative Particle Swarm Optimization

(Computer Science: first major)

Simulation method study and its application based on MATLAB/SIMULINK

(Mathematics and Applied Mathematics: second major)

GPA (Computer Science, Overall): **91.00/100** Rank: **2/257**

GPA (Mathematics and Applied Mathematics , Overall) :**85.36/100**

Research Interests

- **Computer Vision**, including Image Segmentation, computational Photography, Biomedical Image Processing, Motion Estimation, Object Recognition & Detection, etc
- **Pattern Recognition**, including Learning algorithms, Neural Networks; Connectionist Learning models, etc
- **Machine learning**, including Manifold learning, Sparse Representation, Semi-supervised learning, Evolutionary Computation, combinatorial optimization, Particle Swarm, etc

Research Experience

University of Science & Technology of China, Department of Automation

Graduate Student Research Assistant, 09/2006-present

- ◆ Segmenting Plant Leaf Images (Cooperate with the Hefei Botanical garden)

- 1) Proposing a fast level set model to segment the texture Images and applying the model to leaf images for further leaf classification

- 2) Proposing an automated segmentation method with graph cut for leaf images.
- 3) Applying Locally Excitatory Globally Inhibitory Neuronal Oscillator Network on Leaf Image Segmentation for further leaf classification
- ◆ Constructed the Parallel Cluster Network of the Hefei Institute of Intelligent Machines, Chinese Academy of Sciences Intelligent Computing Lab for the high performance computing in the laboratory. Such as the parallel image processing, microarray data computing.
- ◆ Participated the workshop of the 973 Project “Theories and Techniques for Unstructured Information Processing on Visual Recognition” on April 7-11, 2008 in Xi’an Jiaotong University.
- ◆ Serviced as Technical Support present at The ACM Asia Programming Contest Hefei Site 2008 University of Science and Technology of China Nov.16, 2008.

Central China Normal University (CCNU), Department of Computer Science & Department of Mathematics and Applied Mathematics

- ◆ Work on the development of Equipment Management System Using ASP for department of Chemistry in CCNU 2003,10-2004,5
- ◆ Corporate with other people design and develop the multifunctional Kara OK system Using Delphi and SQL database 2005,7-2005,9
- ◆ Develop the Video Player Software (similar to windows media) Using VC and ACCESS database 2005,9-2005,11

TECOM CO., LTD. Wuhan, China

Intern, 7/2006-9/2006

- ◆ VOIP software R&D
 - 1) Debugged the TCP/IP programming in LINUX
 - 2) Develop the programming of network protocol with LINUX platform

Neptune Engineering Development Co., Ltd., Wuhan, China

Intern, 11/2005-1/2006

- ◆ Magazine navigation systems Design & Development Using VC and SQL database
 - 1) Design the magazine database Using SQL
 - 2) Each subroutine and sub-model’s connection Using VC

Software Lab of Computer science department in Centre China normal University

Administrator, 9/2005-7/2006

- ◆ Normally Computer hardware maintenance and management
- ◆ Counseling the students software experiment classes

Student Research Assistant, 3/2006-7/2006

- ◆ Developed the Software Lab Management System Using VC and SQL database, and used in the Lab to manage the experimental situation of the students in CCNU’s computer science department

Teaching Experience

- ◆ **University of Science & Technology of China, Department of Automation**
Graduate Teaching Assistant, 9/2007-2/2008
Taught "Real Variable and functional analysis" to elementary graduate students in automation.
- ◆ **Zhongke Education and training in schools, Wuhan, China**
2005,7-2005,9 & 2006,5-2006,7
Taught "VC++ program design", and “C programming ” to elementary undergraduate students

Publication

1. **Huan Xu**, Xiaofeng Wang. "Automated Segmentation Using a Fast Implementation of the Chan-Vese Models," Lecture Notes in Computer Science, Springer Berlin/Heidelberg, LNCS 5227, pp.1135-1141, 2008(International Conference on Intelligent Computing, September 15-18, 2008,Shanghai, China).
2. **Huan Xu**, Deshuang Huang. "One Class Support Vector Machine for Distinguishing Photographs and Graphics," IEEE International Conference on Networking, Sensing and Control, IEEE ICNSC 2008, Vol.1, pp. 602-607, April 6-8, 2008, Sanya, China.
3. De-Shuang Huang, Xiaofeng Wang, Jixiang Du, Wei Jia, Qingkui Man, Fengyan Lin, **Huan Xu**, Yingke Lei, Linfeng Liu. "Plant leaves images recognition system," Computer Software copyright, NO.2008SR21770.
4. Xiao-Feng Wang, De-Shuang Huang, **Huan Xu**. "An Efficient Local Chan-Vese Model for Image Segmentation," accepted by Pattern Recognition.
5. Xiao-Feng Wang, De-Shuang Huang, **Huan Xu**. "A Novel Density-Based Clustering Framework Using Level Set Method," accepted by IEEE Transaction on Knowledge and Data Engineering.
6. Xiao-Feng Wang, De-Shuang Huang, Ji-Xiang Du, **Huan Xu**, Laurent Heutte. "Classification of plant leaf images with complicated background," Applied Mathematics and Computation, Vol. 205, pp. 916-926, 15 November 2008.
7. Xin Zhuang, **Huan Xu**, and Jun-Yi Sun, "An improved algorithm for wiring in circuit boards," Journal of High Correspondence Education (Natural Sciences Edition), Vol.18, No.4,pp.39-41, 2005.

Awards/Honors/Scholars

- 2008 the CASC honor of USTC (Top 3%)
- 2007 the Second Class Prize of the 2007 Fourth China Postgraduate Mathematical Contest in Modeling
- 2006 dissertation "A New Adaptive Mutation Dissipative Particle Swarm Optimization" honored the Second Prize in outstanding undergraduate thesis of Hubei Province. (Top 1%)
- 2006 Excellent Graduate Students of CCNU (Top 5%)
- 2002-2006 First-rate Academic Scholarship in CCNU (6 times) (Top 3%)
- 2002-2006 Excellent Students of CCNU (3 times) (Top 3%)
- 2004-2005 the First Prize of the Programming Contest in CCNU (2 times)
- 2005 Winning prize of on behalf of CCNU participating ACM/ICPC (Associate for Computing Machinery / International Collegiate Programming Contest) in Shanghai Jiao Tong University
- 2004 the Third Class Prize of on behalf of CCNU participating ACM/ICPC of Huazhong Region in Wuhan University.

Tests

GRE (10/2008) Verbal: 370 Quantitative: 770 Analytical Writing: 3.0 Total Score: 1140+3.0
TOEFL iBT(11/2008) Reading: 27 Listening: 19 Speaking 17 Writing:17 Total Score: 80

中国科学技术大学研究生成绩单

研究生姓名	徐欢欢	学号	SA06157051	出生日期	1984-07-15	
所属系别	自动化系	专业	模式识别与智能系统			
课程名称						
		课内总学时	学分	成绩	修课学期	备注
FL05301	研究生综合英语	40	2	通过	2006秋	
FL05303	学术交流英语	40	2	通过	2006秋	
FL06301	科技论文写作	40	2	通过	2007春	
PS05101	自然辩证法概论	54	2	84	2006秋	
PS05102	科学社会主义理论与实践	36	1	84	2007春	
CN05101	随机过程理论	80	4	95	2007春	
CN05111	控制理论中的代数基础	60	3	82	2006秋	
CN05112	实变与泛函	80	4	92	2006秋	
CN05115	智能系统	60	3	76	2006秋	
CN04132	最优化方法	60/20	3.5	91	2006秋	
CN05103	模式识别	60/20	3	81	2006秋	
CS04301	并行程序设计	60/20	3.5	80	2007秋	
ES25204	图像分析与处理	60/20	4.5	87	2007春	
ES25209	计算机视觉	40/10	2	82	2007春	
ES25212	神经网络及其应用	60	3	82	2007春	
IN05113	数字图像分析	60/20	3.5	91	2007春	
IN05125	小波变换及应用	40/20	2.5	85	2006秋	
PE04007	篮球	40	2	A-	2007春	
以下空白						

系教学秘书: 洪力奋
2008年11月10日

研究生院:



华中师范大学(2006)届毕业生历年学业成绩表

6
1
(102) 2006

学号: 20023069 姓名: 徐欢欢 院系: 计算机科学系 专业: 计算机科学与技术 学制: 4年 学历: 本科

课程名	类别	成绩	学分	学期	课程名	类别	成绩	学分	学期
大学体育1	公必	89	1	1	组合数学	专选	91	3	4
思想道德修养	公必	84	3	1	大学体育3	公必	84	1	5
毛泽东思想概论	公必	86	2	1	邓小平理论概论	公必	76	4	5
大学英语(1)	公必	78	4	1	数学分析3	任选	83	4	5
解析几何	任选	93	2	1	抽象代数	任选	72	4	5
高等数学(1)	专必	98	4	1	计算机数学软件	任选	89	3	5
计算科学导论	专必	95	2	1	计算机组成原理	专必	75	4	5
解析几何与线性代数(1)	专必	90	2	1	汇编语言程序设计	专必	97	3	5
大学体育2	公必	87	1	2	操作系统原理	专必	90	3.5	5
法律基础	公必	91	2	2	算法设计与分析	专选	90	4	5
马克思主义哲学原理	公必	90	3	2	专业英语	专选	90	3	5
大学英语(2)	公必	71	4	2	人工智能原理	专选	90	3	5
高等数学(2)	专必	95	4	2	工程数学	专选	94	3	5
电路原理	专必	89	4.5	2	计算机图形学	任选	83	2	5
高级语言程序设计	专必	93	3	2	基本乐理	任选	74	2	6
解析几何与线性代数(2)	专必	96	2	2	射影几何	任选	87	3	6
学校心理辅导	任选	78	2	3	常微分方程	任选	87	3	6
大学语文	任选	75	2	3	复变函数	任选	93	3	6
大学英语(3)	公必	76	4	3	概率论	任选	87	4	6
数学分析1	任选	78	6	3	数学模型	任选	92	3	6
高等代数1	任选	85	5	3	组合数学	任选	83	3	6
高等数学(常微分方程)	专必	93	4	3	图论	任选	85	3	6
数据结构	专必	98	4	3	计算机网络	专必	85	3	6
离散数学	专必	93	4	3	数据库系统原理	专必	86	4	6
模拟电子技术	专选	90	4	3	微型计算机技术	专必	83	4	6
大学体育4	公必	71	1	4	计算机系统结构	专必	90	3	6
马克思主义政治经济学	公必	76	2	4	软件工程学	专必	89	3	6
大学英语(4)	公必	82	4	4	VC编程	专选	70	2	6
数学分析2	任选	95	6	4	通信原理概论	专选	83	3	6
高等代数2	任选	85	5	4	初等数论	任选	69	3	7
概率统计	专必	91	3	4	操作系统课程设计	专选	80	2	7
数字逻辑	专必	93	4	4	接口技术课程设计	专选	84	2	7
C++与OO程序设计	专必	93	3	4	数据库课程设计	专选	91	2	7
编译原理	专选	95	3	4	实用网络技术	专选	91	2	7
数值分析	专选	89	3	4					

毕业论文(设计)题目: 自适应变异的耗散粒子群优化算法 成绩: 优 学分: 6

生产实习成绩: 良	学分: 6	教育实习成绩:	学分:	教务处审定意见: 准予毕业 授予学位 2006年06月12日
毕业实习成绩:	学分:	教学实习成绩:	学分:	
专业课平均学分绩: 87.58	所有课平均学分绩: 86.46	修业结束决定: 准予毕业。经评		

毕业应 得学分	151	其 中	专业必修	公共必修	专业选修	任意选修	院(系)领导签字
			71	36	29	15	
修业实 得学分	214	其 中	专业必修	公共必修	专业选修	任意选修	院(系)公章
			71	36	39	68	

