

# YI ZHUANG

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## OBJECTIVE

To do innovative and solid research work in computer science in academic society.

## RESEARCH INTERESTS

High-dimensional indexing, Multimedia & XML databases, Grid computing; Large-scale data mining;

## EDUCATION

- 2004.9 – 2008.3      Ph.D in Computer Science,      Zhejiang University
- Thesis: Efficient Query Processing over Large-scale Multimedia Databases
  - Advisor: Prof. Yueting Zhuang
- 1996.9 – 2004.3      M.S and B.S in Computer Science,      Hangzhou Dianzi University
- Thesis: Efficient Query Processing over XML Database
  - Advisor: Prof. Yutong Wang

## HONORS AND AWARDS

- 2008      CCF Doctoral Dissertation Award
- 2008      The First Class Award for Best Natural Science Paper in Hangzhou (top 2%)
- 2007-2008      IBM Ph.D Fellowship (top scholarship World Wide)
- 2008      Travel Grant Award for ICDCS'08
- 2007      HE ZHI JUN Scholarship (top scholarship in University)
- 2006-2007      First Class Graduate Scholarship in ZJU
- 2004.4      The Excellent Graduated Master Student in HDU (top 15%)
- 2004.3      The Best Master Thesis Award in HDU (top 10%)
- 1996-1998      Numerous Undergraduate Student First Class Scholarships, HDU (top 10%)

## RESEARCH AND WORK EXPERENCES

- 2008.5– present      *Associate Professor*  
College of Computer & Information Engineering  
Zhejiang Gongshang University, Hangzhou, China
- 2008.1– 2008.3      *Research Intern*  
Healthcare Informatics & Solution Team  
IBM China Research Lab, Beijing, China

Project: *Next Generation Health Care Information System Project* (ongoing)

- Develop a novel hybrid storage scheme to support efficient xml query.

2004.9 – 2007.12 *Research Assistant*

Digital Media Computing & Design Lab ([www.dcd.zju.edu.cn](http://www.dcd.zju.edu.cn))

College of Computer Science, Zhejiang University

Project: *The Retrieval and Indexing of Large-scale Cross-media and its Intelligent Processing Techniques Project* (ongoing)

- Develop a new scheme to support cross-media retrieval in the web.
- Develop a novel indexing method for large-scale cross-media data.
- Model a novel cross-reference graph for the search of cross-media data.

Project: *China-America Digital Academic Library Project*(completed)([cadal.zju.edu.cn](http://cadal.zju.edu.cn))

- Develop a novel indexing structure for large high-dimensional Chinese calligraphic character databases in multimedia digital library.
- Develop a novel  $k$ -Nearest-Neighbor Query based on data grid.

2002.3-2003.12 *Research Assistant*

Database & Information Processing Lab, Hangzhou Dianzi University

Develop a novel index structure to support efficient XML data query processing.

## **PUBLICATIONS**

### **• Refereed Journal Papers**

1. Yang, LH, He, XG, Lee, ML, Hsu, Wynne, He,BS, Chen,LJ, Gong,WH, and **Zhuang, Y.** Matching and Clustering XML Schemas for Scalable Integration and Warehousing. to appear at *Int'l Journal of Electronics and Computers*
2. **Yi Zhuang,** Y.T Zhuang, Q. Li and L. Chen, *Interactive High-dimensional indexing for Large Chinese Calligraphic Character Databases*, *ACM Trans. on Asian Language Information Processing*, 2007,(6)2.
3. **Y. Zhuang,** Y.T Zhuang and F. Wu, *Composite Distance Transformation for Indexing and  $k$ -Nearest-Neighbor Searching in High-Dimensional Spaces*, *Journal of Computer Science and Technology* (Special Issue on Data Management), 2007,22(2), pp. 208-217 (published by Springer)
4. **Y. Zhuang,** Y.T Zhuang and F. Wu,  *$k$  Nearest Neighbor Queries based on Data Grid*, *Journal of Computer Research and Development*, 2006.43(11): pp.1876-1885 (in Chinese).
5. **Y. Zhuang,** Y.T Zhuang and F. Wu, *Answering  $k$ NN Queries of Chinese Calligraphic Character based on Data Grid*, *Journal of Software*, 2006,17(11): pp. 2289-2301 (in Chinese).
6. **Y. Zhuang,** Y.T Zhuang and F. Wu, *Indexing a Large Chinese Calligraphic Characters Dataset*, *Journal of Computer-Aided Design & Computer Graphics*, 2007,19(2), pp.233-239 (in Chinese).
7. **Y. Zhuang,** J.G Weng, Y.T Zhuang and F. Wu, *A Novel High-dimensional Indexing Method based on Hybrid Distance Metric*, *Journal of Zhejiang University*, 41(2), pp. 380-385 (in Chinese).
8. **Y. Zhuang,** Y.T Zhuang and F. Wu, *A Encoding-based Dual Distance Tree High-Dimensional Indexing Structure*, *Science in China Series (E: Information Sciences)*, 37(12): pp.1491-1503 (in Chinese).
9. **Y. Zhuang,** Y.T Zhuang and F. Wu, *Integrated Index Structure for Efficient Large-Scale Cross-Media Retrieval*, *Journal of Software*, 2008, 19(10): pp.2667-2680(in Chinese).

### **• Refereed Conference Papers**

1. **Y. Zhuang,** N. Jiang, HY. Hu. *A Web-based Search Engine for Chinese Character Manuscript Images*. Proc. of the Int'l Conf. on Web-based Learning (ICWL' 09). Aachen, Germany. 2009.

2. **Y. Zhuang**, Q. Li, L. Chen. *A Unified Indexing Structure for Efficient Cross-Media Retrieval*. Proc. of the Int'l Conf. on Database Systems for Advanced Applications (DASFAA' 09). Brisbane, Australia. 2009.
3. **Y. Zhuang**, H. Hu, X.J Li, B. Xu and H.Y Hu. *Optimal k Nearest Neighbor Query in Data Grid*. Prof. of the Joint Int'l Conf. on Asia-Pacific Web Conference and Web-Age Information Management (WAIM-APWeb'09). Suzhou, China. 2009.
4. **Y. Zhuang**, Q. Li and L. Chen, *Multi-query Optimization for Distributed Similarity Query Processing*. Proc. of the Int'l Conf. on Distributed Computing System (ICDCS'08). Beijing. 2008.
5. **Y. Zhuang** Y.T Zhuang, Q. Li, L. Chen and Y. Yu, *Indexing High-Dimensional Data in Dual Distance Spaces: A Symmetrical Encoding Approach*. Proc. of the Int'l Conf. on Extending Database Technology (EDBT'08), pp. 241-251. Nante, France, 2008.
6. **Y. Zhuang** and F. Wu, *Answering kNN Queries over Large Image Databases Using Dual Distance Transformation*. Prof. of the 13<sup>th</sup> Int'l Multimedia Modeling Conf. (MMM' 07), pp. 408-417. Singapore, 2007.
7. **Y. Zhuang**, Y.T Zhuang, Q. Li and L. Chen, *Interactive Indexing for a Large Chinese Calligraphic Characters Databases*. Prof. of ACM 15<sup>th</sup> Conf. on Information and Knowledge Management(CIKM' 06), pp. 884-885. Arlington, US. 2006.
8. **Y. Zhuang**, Y.T Zhuang, Q. Li and F. Wu, *Speeding up k-Nearest-Neighbor Queries over Large Chinese Calligraphic Character Databases Through Data Grid*. Prof. of the 6<sup>th</sup> Int'l Conf. on Grid & Cooperative Computing(GCC'07), pp.499-506. Urumuqi, 2007.

#### ● **Book Chapters**

1. Qing Li, **Yi Zhuang**, Jun Yang, Yueting Zhuang, *Multimedia Information Retrieval*, Encyclopedia of Multimedia Technology and Network, Volume II, Published by Idea Group, Margherita Pagani (eds.).
2. Zhiang Wu, Nan Tang, **Yi Zhuang**. *Deployment and Management of Linux Server*. Tsinghua University Press.

#### PATENTS IMPENDING

1. *Method and System for k Nearest Neighbor Queries Through Data Grid*. (No. 200610053408.0), Zhejiang University
2. *Method and System for Interactive Indexing and Retrieval for Large Chinese Calligraphic Character Databases*. (No. 200610053409.5), Zhejiang University.
3. *Method and System for Answering kNN Queries of Chinese Calligraphic Character based on Data Grid*. (No. 20061005340 7.6), Zhejiang University.

#### TALKS

- Oral presentation: *A Unified Indexing Structure for Efficient Cross-Media Retrieval*, DASSFA'09, Brisbane, Australia, April 2009.
- Oral presentation: *Multi-query Optimization for Distributed Similarity Query Processing*, ICDCS'08, Beijing, China, June 2008.
- Oral presentation: *Indexing High-Dimensional Data in Dual Distance Spaces: A Symmetrical Encoding Approach*, EDBT'08, Nante, France, March 2008.
- Oral presentation: *Speeding Up kNN Queries over Large Chinese Calligraphic Character Databases Through Data Grid*, GCC'07, Xinjiang University, Urumuqi, August 2007.
- Invited talk by IBM China Research Lab: *Index-Based Efficient Large-Scale Multimedia Retrieval*, Beijing, China, August 2007.

- Oral presentation: *Answering kNN Queries over Large Image Databases Using Dual Distance Transformation*, MMM'07, Nanyang Technological University, Singapore, January 2007.
- Invited talk by HP Lab in China: *Interactive Indexing for Large Chinese calligraphic character databases*, Beijing, China, Dec 2006.

### **PROFESSIONAL SKILLS**

- Programming Skills: C/C++, Java, VB, Pascal, HTML, XML
- Operating Systems: UNIX, LINUX, Windows 9X/NT, MS DOS
- Network Protocols: TCP/IP etc
- Databases: Oracle, Microsoft SQL server
- Other Softwares: Matlab

### **UNIVERSITY AFFILIATIONS**

- 2004-2005, Vice President of Doctoral Student Association in College of Computer Science, ZJU
- 2003-2004, President Assistant of Graduate Student Association, HDU
- 2003-2004, Vice Minister of Graduate Student Association, HDU
- 2002-2004, President of graduate student Class, HDU

### **ACADEMIC SERVICES**

- **Program co-Chair**
  - *The 1<sup>st</sup> Int'l Workshop on Mobile Business Collaboration(MBC'09), in conjunction with DASFAA' 09, 2009*
  - *The 1<sup>st</sup> Int'l Workshop on Web-based Contents Management Technologies(WCMT'09), in conjunction with WAIM'09/APWeb'09, 2009*
  - *The 1<sup>st</sup> Int'l Workshop on Security, Reliability and Quality in Cloud Computing (SRQCC'09) to be held in conjunction with IEEE NSS'09, 2009*
- **PC Member**
  - *The 3rd IEEE Int'l Conf. on Network and System Security(NSS'09), Australia, 2009*
  - *The 4th Int'l Conf. on Digital Information Management (ICDIM 2009), Michigan, USA, 2009.*
  - *The 3rd Int'l Workshop on Service-Oriented Knowledge Management, 2009*
  - *Int'l Workshop on Business Intelligence Methodologies and Applications(BIMA'09), 2009.*
- **Associate Editor**
  - *Int'l Journal of Systems and Service-Oriented Engineering (since 2010)*
- **Editorial Board**
  - *Int'l Journal of Organizational and Collective Intelligence (since 2010)*
  - *Int'l Journal of Digital Content Technology and its Applications(since 2009)*
- **Reviewer**
  - *IEEE Trans. on Knowledge and Data Engineering(TKDE)*
  - *Information System Frontiers (Special Issue on "Emerging Social and Legal Aspects of Information Systems" with Web 2.0)*
  - *Research Letters in Signal Processing*

- *Chinese Journal of Image and Graphics*

- **External Reviewer**

- *IEEE Trans. on Multimedia(TMM)*
- *IEEE Int'l Conf. on Data Engineering(ICDE), 2008, 2009*
- *ACM Int'l Conf. on Multimedia(ACM MM'08), 2008*
- *Int'l Multimedia Modeling Conf. (MMM), 2005, 2006*
- *Int'l Conf. on Web Age Information Management(WAIM), 2005, 2008*
- *Doctoral Consortium on Data Engineering and Web Technology Research (DeWeb'08),2008*
- *The 1st IEEE Int'l Workshop on Multimedia Databases and Data Management (MDDM'06), 2006*

- IEEE Member, ACM Member, Member of ACM SIGMOD, Member of Chinese Computer Society

**REFERENCES**

- Dr. Yueting Zhuang  
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