

## Jianxia Chen

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### SKILLS

- 4 years of extensive research experience in parallel and distributed systems
- Solid knowledge of operating system: Unix, Linux and Windows
- In depth knowledge of TCP/IP and network programming
- Strong programming experiences (10 years) in C/C++ and Java on Linux and Windows
- Other skills: Python, Matlab, Unix/Linux Shell Script, MPI, Pthread, MySQL, HTML, XML and JavaScript

### EDUCATION

- **Ph.D. (Computer Science)** The University of Georgia (Fall 2005—present)
- **Master of Engineering (Computer Science)** Xiamen University, China (2005)
- **Bachelor of Engineering (Computer Science)** Xiamen University, China (2002)

### RESEARCH & PROJECTS

#### *Message Aggregation and Redundancy Elimination in Publish-Subscribe Systems*

- Integrate partial event messages and eliminate message redundancy in large scale publish-subscribe systems
- Reduce overall system message load and individual subscriber's message load

#### *Light Weight Support for Continuous Queries on Large Scale Unstructured Overlay Networks*

- Heuristic algorithm of cluster resilient random walk for improved distribution of continuous queries
- Dynamic query registration scheme to ensure steady performance of queries

#### *Distributed Peer-to-peer Network Simulator*

- Simulator runs simultaneously on multiple distributed processors and communicates via socket
- Intelligently assign the P2P nodes to processor to reduce inter-processor communication overhead

#### *Video Surveillance System for Moving Targets*

- Detecting moving objects from complex background in real time video stream

#### *Finger Print Image Preprocessing*

- Multiple-phase image processing technique to enhance finger print features

### WORK EXPERIENCE

#### **System Administrator** Bio-imaging Research Center, University of Georgia (Fall 2007 – present)

- Unix/Linux/Windows/Netware/Citrix system administration and cross-platform communication
- Neuroscience applications administration, MRI simulation systems and trouble shooting
- Coordinating with multiple departments on system architecture design and implementation

#### **Software Engineer** (overseas intern) USC DigiArk Co. Tokyo, Japan (Spring 2005)

- Cross-platform wireless real-time video transfer on embedded systems
- Architecture design, implement, trouble shooting and performance evaluation
- Team work with foreign engineers using different languages

#### **Software Engineer** (intern) eHealthInsurance (Xiamen) R&D Center (Spring and Summer 2002)

- Simulate the customer behavior at commercial health insurance website
- Website and database performance evaluation based on simulated customer behavior

### PUBLICATIONS

1. **Jianxia Chen**, Lakshmish Ramaswamy and David Lowenthal. "Towards Efficient Event Aggregation in a Decentralized Publish-Subscribe System". Submitted to ACM DEBS 2009
2. Lakshmish Ramaswamy and **Jianxia chen**. "The CoQUOS Approach to Continuous Queries over Unstructured Overlays". Submitted to IEEE Transactions on Data Engineering.
3. **Jianxia Chen**, Lakshmish Ramaswamy and Archana Meka. "Message Diffusion in Unstructured Overlay Networks", IEEE NCA 2007
4. Lakshmish Ramaswamy, **Jianxia Chen** and Piyush Parate. "CoQUOS: Lightweight Support to Continuous Queries on Unstructured Overlays". IEEE IPDPS 2007 (Acceptance Rate: 26%)
5. Lakshmish Ramaswamy, Arun Iyengar and **Jianxia Chen**. "Cooperative Data Placement and Replication in Edge Cache Networks". CollaborateCom 2006
6. Lakshmish Ramaswamy and **Jianxia Chen**. "Efficient Delivery of Dynamic Content: The Cooperative EC Grid Project". CollaborateCom 2005