

## Qi Guo

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Atlanta, Georgia 30322, USA

### Research Interests

Information retrieval, user behavior modeling, machine learning

### Education

**Emory University**    09/2007 - Present  
Ph.D. Student in Computer Science (GPA: 3.86/4.0)    Advisor: Eugene Agichtein  
Main Courses: Natural Language Processing, System Programming, Data Mining, Algorithms, Information Retrieval, Theory of Computing, Compiler Construction, Parallel Computing, Operating Systems

**Zhejiang University**    09/2003 - 06/2007  
B.S. in Software Engineering (GPA: 3.72/4.0; Major GPA: 3.87/4.0)    *Summa Cum Laude*

**University of Washington**    06/2006 - 07/2006  
Honor Certificate in International Outreach and Exchange Program

### Work Experience

**Intelligent Information Access Lab, Emory University**    Research Assistant  
Atlanta, GA    09/2007 - Present  
Investigated query intent prediction through implicit user feedback and explored user behavior modeling of online information-seeking for web search and library search. Designed and implemented client-side instrumentation to capture online user information-seeking behavior using Javascript, and analyzed patterns using sequential models.

**eBay Inc./Shopping.com**    Research Science Intern  
Brisbane, CA    06/2008 - 08/2008  
Investigated query clickthrough estimation for product search and implemented a query filter based on estimated clickthrough using machine learning techniques.

**Microsoft Research Asia**    Research Intern  
Beijing, China    01/2007 - 06/2007  
Investigated object recognition techniques and developed software for boundary detection, image segmentation and digit recognition.

**Microsoft Visual Perception Lab, Zhejiang University**    Research Assistant  
Hangzhou, China    05/2006 - 12/2006  
Investigated image-processing techniques and developed an automatic wood panel quality analyzer.

**Haisheng-Ufida Software Co., Ltd.**    Engineer Intern  
Xiamen, China    Summer 2006  
Co-designed a company-wide version control system and tested software with automatic tools.

**Sealink Software Co., Ltd.**    Engineer Intern  
Xiamen, China    Summer 2005  
Documented software requirement and tested software with automatic tools.

### Publications

- **Q. Guo**, E. Agichtein, C. Clarke and A. Ashkan. “In the Mood to Click? Towards Inferring Searcher Receptiveness to Advertising”, to appear in the ACM/IEEE International Conference on Web Intelligence (WI), 2009.
- A. Ashkan, C. Clarke, E. Agichtein and **Q. Guo**. “Estimating Ad Clickthrough Rate through Query Intent Analysis.”, to appear in the ACM/IEEE International Conference on Web Intelligence (WI), 2009.
- **Q. Guo** and E. Agichtein. “Beyond Session Segmentation: Predicting Changes in Search Intent With Client-Side User Interactions”(poster), to appear in the 32nd ACM International Conference on Research and Development in Information Retrieval (SIGIR), 2009.
- **Q. Guo**, R. Kelly, S. Deemer, A. Murphy, J. Smith, and E. Agichtein. “EMU: The Emory User Behavior Modeling System for Automatic Library Search Evaluation: Preliminary Results”(poster), to appear in the 9th Joint Conference on Digital Libraries (JC DL), 2009.
- A. Ashkan, C. Clarke, E. Agichtein and **Q. Guo**. “Classifying and Characterizing Query Intent in Sponsored Search.”, to appear in the 31st European Conference on Informational Retrieval (ECIR), 2009.
- **Q. Guo**, E. Agichtein, C. Clarke and A. Ashkan. “Understanding ‘Abandoned’ Ads: Towards Personalized Commercial Intent Inference via Mouse Movement Analysis”(short paper), Proceedings of the SIGIR Workshop on Information Retrieval in Advertising, 2008.
- A. Ashkan, C. Clarke, E. Agichtein and **Q. Guo**. “Characterizing Query Intent From Ad Clickthrough Data”, Proceedings of the SIGIR Workshop on Information Retrieval in Advertising, 2008.
- **Q. Guo** and E. Agichtein. “Exploring Client-Side Instrumentation for Personalized Search Intent Inference”, Proceedings of the AAAI Workshop on Intelligent Techniques for Web Personalization & Recommender Systems, 2008.
- **Q. Guo** and E. Agichtein. “Exploring Mouse Movements for Inferring Query Intent”(poster), Proceedings of the 31st ACM International Conference on Research and Development in Information Retrieval (SIGIR), 2008.

### Project Experience

- Investigated web search query intent prediction through implicit user feedback including mouse move trajectories and clickthrough data. Designed and implemented client-side instrumentation to capture online user information-seeking behavior using Javascript, and analyzed patterns using sequential models.
- Investigated query clickthrough estimation for product search and implemented a query filter in Ruby based on estimated clickthrough using machine learning techniques.
- Investigated user behavior modeling of online information-seeking for digital library search evaluation by query log analysis.
- Investigated query difficulty prediction and query classification using clickthrough data.
- Designed and implemented an information extractor for electronic medical records using GATE.
- Designed and implemented an image boundaries detector using local brightness, color, and texture cues in C/C++.
- Co-designed and implemented a panel quality analyzer using C#.

## Honors

- Yahoo! Key Scientific Challenges Award (\$5,000) 2009
- SIGIR 2008 Student Travel Grant (\$1,100) 2008
- Ph.D. Fellowship Award, Graduate School of Emory University 2008
- Excellent Graduate Award, Zhejiang University 2007
- International Exchange Program Scholarship, Zhejiang University 2006
- Excellent Student Scholarship, Zhejiang University, TWICE 2005 - 2006
- Excellent Student Award, Zhejiang University, TWICE 2005 - 2006
- Excellent Student Leader Award, Zhejiang University, THREE TIMES 2004 - 2006
- Excellent Social Service Award, Zhejiang University 2005
- Excellent Arts and Sports Performance Award, Zhejiang University 2004

## Talks

- “Understanding ‘Abandoned’ Ads: Towards Personalized Commercial Intent Inference via Mouse Movement Analysis”, IRA 2008 (Singapore).
- “Exploring Client-Side Instrumentation for Personalized Search Intent Inference”, ITWP 2008 (Chicago, IL).

## Skills

- Languages: Java, C/C++, C#, Javascript, HTML,  $\LaTeX$ , Ruby
- Operating Systems: MS Windows, Solaris, Linux

## References

Dr. Eugene Agichtein  
Assistant Professor  
Math & CS Department  
Emory University  
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Dr. James Lu  
Associate Professor  
Math & CS Department  
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Dr. Daniel Billsus  
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