

Anna Wu

College of Information Science & Technology
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EDUCATION

- 2007.08 - 2012.05
(expected) **Ph.D. in Information Sciences and Technology (Minor: Statistics)**
College of IST, Penn State University, University Park, PA, USA
Dissertation: Information Fusion in Supporting Spatial Sensemaking on Mobile Devices
Committee: Xiaolong Zhang (Chair), John M. Carroll, John Yen, Aleksandra Slavković
- 2005.09 - 2007.07 **M.E. in Management Science and Engineering**
Dept of Industrial Engineering, Tsinghua University, Beijing, China
Thesis: A Study on Wayfinding Aids in Virtual Reality
GPA: 87.3 of 100
- 2001.09 - 2005.07 **B.E. in Mechanical Engineering and Automation**
Dept of Mechanical Engineering, Tsinghua University, Beijing, China
Thesis: Material Transportation in Dip-pen Theoretical Basis: Weissenberg Effect
GPA: 88.3 of 100 (Top3 of 71 students)

RESEARCH EXPERIENCE

- 2007.09 - present **Graduate Research Assistant, Pennsylvania State University**
College of Information Science and Technology
- Wayfinding and human spatial cognition
 - Mobile navigation interface design
 - Visualization for collaborative sensemaking in emergency management
- 2010.08 - present **Visiting Research Scientist, Palo Alto Research Center (PARC)**
Host: Eric Bier
- User studies of a geo-disambiguation algorithm with human annotators
- 2011.05 - 2011.08 **Research Intern, IBM Research – Almaden Research Center**
Mentor: Jeff Pierce (Manager of Mobile Computing Group)
- User studies of mobile applications
- 2010.05 - 2010.08 **Research Intern, Palo Alto Research Center (PARC)**
Mentor: Eric Bier (Principle scientist at Knowledge, Language and Interaction)
- Development and implementation of a geo-disambiguation algorithm in document interaction
- 2009.05 - 2009.08 **Research Intern, IBM Research – Watson Research Center**
Mentor: Joan M. Dimicco (Research Scientist & Manager of Visual Communication Lab)
- Development of a statistical model to detect professional and personal closeness using enterprise social network data (Beehive)
- 2005.09 - 2007.08 **Graduate Research Assistant, Tsinghua University**
Lab of Virtual Reality & Human Interface Technology, Dept. of Industrial Engineering
- Evaluation of different user interactive methods in wayfinding in a virtual city
 - 3D model building and interaction design of a virtual city
 - Study of driving behavior with virtual simulator (Liberty Mutual Group)
- 2006.06 - 2006.08 **Visiting Research Assistant, University of Missouri-Rolla**
Intelligent System Center, Dept of Mechanical Engineering
- Interactive structural engineering design in virtual reality

PUBLICATIONS

Journal Paper (Peer Reviewed)

- [J1] Wu, A., Zhang, W., Zhang, X. (2009). Evaluation of Wayfinding Aids in Virtual Environment. *International Journal of Human Computer Interaction*, 25(1), 1-21.
- [J2] Wu, A., Wang, Y., Zhang, W. (2007). Mobile Phone Influence on Driving Performance in Driving Simulation. *Chinese Journal of Ergonomics*. 13 (3), 44-46.

Conference Papers (Peer Reviewed)

- [C1] Wu, A., Yan, X., Zhang, X. (2011). Geo-tagged Mobile Photo Sharing in Collaborative Emergency Management. Proc. of *VINCI'11*, 1-8.
- [C2] Wu, A., Zhang, X., Cai, G. (2010). An Interactive Sensemaking Framework for Mobile Visual Analytics. Proc. of *VINCI '10*, 133-141.
- [C3] Wu, A. DiMicco, J.M., Millen, D. R. (2010). Detecting Professional versus Personal Closeness Using an Enterprise Social Network Site. Proc. of *CHI'10*, 1955-1964.
- [C4] Wu, A., Zhang, X., Convertino, G., Ganoë, C., Carroll, J. M. (2009). CIVIL: Support Geocollaboration with Information Visualization. Proc. of *Group'09*, 273-276.
- [C5] Wu, A., Zhang, X. (2009). Identifying Proper Scales on Digital Maps for In-vehicle Navigation Systems. Proc. of *HCII'09 in LNCS (vol.5616)*, 262 - 270.
- [C6] Wu, A., Zhang, X., Zhang, W. (2008). GPS---Secure Against Getting Lost, or More Danger?, Proc. of *International Conference of Cyberworlds 2008*, 501-505.
- [C7] Wu, A., Hu, B., Zhang, W. Evaluation of Wayfinding Aids Interface in Virtual Environment. Proc. of *HCII'07 in LNCS (vol. 4551)*, 700-709.

Refereed Non-Archival Publications (Peer Reviewed)

- [P1] Wu, A., Zhang, X. (2011). Location-based Information Fusion for Mobile Navigation. Poster at *Ubicomp'11*. p. 593-594.
- [P2] Wu, A., Zhang, X. (2011). Temporal Sensitivity for Location Disclosure through Mobile Photo-sharing .Proc. of *MLBS'11*, 63-66.
- [P3] Wu, A., Zhang, X. (2010). A Framework of Spatial Sensemaking for Human Navigation. In S. C. Hirtle, A. Klippel & F. Schmid (Eds.), *You-Are-Here 2: 2nd Workshop on Spatial Awareness and Geographic Knowledge Acquisition with Small Mobile Devices at the International Conference Spatial Cognition 2010*, 29-41.
- [P4] Wu, A., Zhang, X., Convertino, G., Carroll, J. M. (2009). Supporting Synchronous Sensemaking in Geo-Collaboration. *Sensemaking workshop at ACM CHI'09*.
- [P5] Wu, A., Zhang, X., Convertino, G., Ganoë, C., Carroll, J. M., Klippel, A. (2010). Sensemaking in the Space: An Alternative Design Perspective for Mobile Navigation Systems. Proc. of *iconference 2010*, p.579-580.
- [P6] Convertino, G., Zhang, X., Wu, A., Hoffman, B., Ganoë, C.H., Carroll, J.M. (2008). Using Visualization Techniques to Enhance Emergency Management and Decision-Making in Geo-Collaboration, in *China-US Workshop on GeoCollaborative Crisis Management 2008*.
- [P7] Klippel, A., Li, R., Wu, A., Zhang, X. (2008). Interactive, Multiscale You-Are-Here Maps. In A. Klippel & S. C. Hirtle (Eds.), *You-Are-Here Maps: Creating a Sense of Place through Map-like Representations Workshop at International Conference Spatial Cognition 2008*, 11-21.
- [P8] Convertino, G., Wu, A., Zhang, X., Hoffman, B., Ganoë, C.H., Carroll, J.M.(2008) Designing Group Annotations and Process Visualizations for Role-Based Collaboration, in Proc of *the Workshop on Social Computing, Behavioral Modeling, and Prediction*, 197-206.

Paper Under Review & Work In Progress

- [W1] Wu, A., Zhang, X., Convertino, G., Ganoë, C., Carroll, J. M. Supporting Collaborative Sensemaking in Emergency Management through Geo-Visualization. *International Journal of Human-Computer Studies*. (Under Review)
- [W2] Wu, A. Bier, E., Lu, X., Dent, K. SPOT: Making Sense of the Places in Documents Using Automatic Geocoding. (WIP)

PATENT

2011 System and Method for Mapping Text Phrases to Geographical Locations. (Filed)

TEACHING

2010 Fall IST220 Network and Telecommunication (**Co-designer/lecturer**)
2011 Spring IST402 Emerging Issues and Technologies -Visual Support System (**Teaching Assistant**)
2006 Fall Product Development Technology and Management (**Teaching Assistant**)
2006 Fall Fundamentals of Human Factors (**Teaching Assistant**)

MENTORSHIP

2011 David Zhang, Master student, Stevens Institute of Technology
2010 Wenting Zhang, IST senior student, Penn State

HONERS & AWARDS

2010 Travel Grant for Doctoral Colloquium at the *International Conference on Spatial Cognition 2010*
2009 Travel Grant for Doctoral consortium at *International Conference on Supporting Group Work 2009*
2007 College of Information Sciences and Technology Fellowship
2002-2006 Annual Tsinghua Excellence scholarships (based on annual evaluation of academia performance),
2002 The third prize in 19th physics competition for non-physics major college students

SKILLS

Operating System Windows, Linux, Android
Programming SQL, Java, Flex, Javascript
Applications Database: SQL Server, MySQL, Postgresql
2/3D modeling and analysis: AutoCAD, Pro/ENGINEER, 3DMax, Creator, ANSYS, CATIA
Simulation: Vega, MATLAB
Data analysis: Origin, SAS, SPSS, R, Minitab
Graphic Design: Photoshop
Languages Native Chinese Speaker
Fluent in English
Knowledge in German (College German Test Level 4) and French (College French Test Level 4)

REFERENCES

Luke Zhang Associate Professor, Pennsylvania State University
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Tel: 814-863-2476 Email: jcarroll@ist.psu.edu
URL: <http://cscl.ist.psu.edu/public/users/jcarroll/Self/index.html>

Joan M. Dimicco Research Scientist and Manager of Visual Communication Lab, IBM Research Center–
Cambridge
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