

Dong Chen

Computer Supported Collaboration and Learning Lab

College of Information Sciences and Technology

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Education

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|--------------|--|--|
| 2012-present | Ph.D. Information Science & Technology | Pennsylvania State University |
| | <ul style="list-style-type: none">• Areas of interest: collaborative visual analytics, socio-technical systems• Core courses: human-computer interaction, information management, data mining, theory of small group discussion | |
| 2011-2012 | M.Sc. Earth System Science | Chinese University of Hong Kong |
| | <ul style="list-style-type: none">• Core courses: earth system science, Geographic Information Science | |
| 2007-2011 | B.S. Earth Sciences & GIS | Zhejiang University |
| | <ul style="list-style-type: none">• Core courses: GIS development, geospatial database, data structure and algorithm, quantitative geography, natural geography | |

Skills

- **Programming:** Python (proficient), Javascript (proficient), C# (prior experience), C++ (prior experience)
- **Spatial analysis:** ArcGIS, Quantum GIS
- **Visualization:** Web-based visualization (D3.js), Geovisualization (NCL, OpenLayers)
- **Statistics:** R

Selected Research Experience

- **Visual Analytic Tool for Intelligence Analysis** **07/2013-present**
The project aims to build a web-based tool for collaborative analysis of multi-dimensional data. I employ brushing and linking techniques to display various attributes of the data (including temporal, spatial, attributes, and network). Video of the Tool available at https://www.dropbox.com/s/hqf8nplcyqmc04d/MURI_4th_review_dashboard_Scenario_PSU.mov
- **Technology facilitating Online deliberation: GeoDeliberator** **10/2012-12/2013**
The project aims to develop a web-based tool facilitating online group decision-making and problem solving. The primary goal is to reduce the cognitive demand for people to make rational arguments. Meanwhile, I develop visual analytical tools to monitor the quality of discussion. Tool available at <http://spatiallab.ist.psu.edu/geodeliberator> (still under development).

- **Language modeling for Conversational GIS interfaces** **09/2012-08/2013**

This project aims to develop a conversational system for spatial analytical tasks. I am applying linguistic discourse theories to modeling dialogue acts of human-GIS interactions in spatial analysis. I employ Microsoft Kinect to capture user's speech and gestures in the human-computer collaboration. Video available at <http://spatial.ist.psu.edu/cai/caga1/caga1.htm>

Publication

- Cai, G., Yu, B., & Chen, D. (2013). Modeling and Communicating the Conceptual Intent of Geo-Analytical Tasks for Human-GIS Interaction. *Transactions in GIS*, 17(3), 353–368. doi:10.1111/tgis.12040
- Zhang, C., Lin, H., Chen, M., & Chen, D. (2012). Integrating VGE and WRF / CMAQ Models for Air Quality Management in PRD Region. In *Inter-University Seminar on Asian Megacities, Pacific National University* (pp. 1–9). Khabarovsk, Russia.

Research Activities

- **June 2013 Social Computational Systems (SoCS) 2013** **Poster presenter**
PI & Community Meeting
Present a poster on web technology facilitating online group deliberation
- **July 2013 ESRI User Conference** **Presenter and volunteer**
Work as a volunteer in the user conference of ESRI, world's largest commercial GIS company. Also present a paper on intelligent GIS agent, which has been published in *Transaction in GIS*

Honors and Awards

Pennsylvania State University

- Fall 2012 Robert W. Graham Graduate Fellowship

Zhejiang University

- Fall 2009 Outstanding Student Leader Awards
- Spring 2009 Scholarship for Excellence in Research and Innovation

Employment

05/2013-present	Research Assistant	Pennsylvania State University
	Research assistant in a project for intelligence analysis, responsible for visual analytic tool development and design	
08/2012-05/2013	Teaching Assistant	Pennsylvania State University
	Teaching assistant for Course EA 871: Enterprise Architecture Foundations	
01/2011-05/2011	Research Assistant	Chinese University of Hong Kong
	Research assistant in Virtual Geographic Environment project	