

# Wenwen Zhang

Ph.D. Student

Center for Geographic Information Systems, Georgia Institute of Technology

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## EDUCATION

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### ***Georgia Institute of Technology, Georgia, USA***

Ph.D. in City and Regional Planning | GPA 3.92 2013 - Present

Master of Science in Civil Engineering | GPA 3.92 2011 - 2013

Master of City and Regional Planning | GPA 3.92 2011 - 2013

### ***Zhejiang University, China***

Bachelor in Engineer in City and Regional Planning | GPA 3.89 2006 - 2011

## SELECTED RESEARCH EXPERIENCE

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### ***NSF Project with Dr. Subhrajit Guhathakurta | Modelling urban energy flow***

- Developed four step transportation demand model in TransCAD for Phoenix Metropolitan Area
- Assessed household transportation associated energy consumption, GHG and air Pollutant Emissions for 2001 and 2009

### ***NSF Project with Dr. Steven French | NEESR-GC Simulation of the SEISMIC Performance of Ceiling-Piping-Partition***

- Used HAZUS, a GIS based software, to simulate different earthquake scenarios from year 2010 to 2030 to assess how much non-structural damaged will be caused and provide policy implications for local government to improve building codes.

### ***Research Project with Dr. John Peponis | Space Syntax for the Median Central Area Master Plan***

- Developed python scripts to calculate reach metrics and direction reach metrics using Dijkstra Algorithm to evaluate how well the proposed street networks are connected.

## TECHNICAL SKILLS

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- Proficient in Python, Javascript, CSS, Matlab and R programming language
- Expert in EXPR Products, including ArcMap, ArcScene, and ArcCatalog
- Familiar with Cube, TransCAD, Adobe Photoshop, Sketch-up, and Rhino 3D Modeler

## REFEREED CONFERENCE PROCEEDINGS

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**Wenwen Zhang**, Subhrajit Guhathakurta, Jingqi Fang, Ge Zhang, *The Performance and Benefits of a Shared Autonomous Vehicles Based Dynamic Ridesharing System: An Agent-Based Simulation Approach*. TRB Conference, January 11-17, Washington D.C., 2015.

**Wenwen Zhang**, Subhrajit Guhathakurta, Jingqi Fang, Ge Zhang, *Exploring the Impact of Shared Autonomous Vehicles on Urban Parking Demand*. ACSP 54th Annual Conference, October 30- November 2, Philadelphia, PA, 2014.

**Wenwen Zhang**, Margaret Carragher, Ann Jacobs, *Spider Maps: Summary of Best Practices and Guide to Design*, TRB Conference, January 11-17, Washington D.C., 2014.

**Wenwen Zhang**, Subhrajit Guhathakurta, Yanzhi Xu. *The Impact of Compact Development on Travel Behavior, Energy Consumption and GHG Emissions: Lessons Learned from Phoenix Metropolitan Area*. NARSC/RSI Conference, November 13-16, 2013, Atlanta, Georgia, 2013.

Stephanie Schweitzer, Ariane Middel, **Wenwen Zhang**, *Urban transport energy consumption explored through 3D ARC maps*, IEEE VisWeek 2013, Visualization, October 13-18, Atlanta, Georgia, 2013.

**Wenwen Zhang**, Margaret Carragher, *Spider Maps: Summary of Best Practices and Guide to Design*, GIS in Transit 2013, October 16-17, Washington D.C., 2013.

**Wenwen Zhang**, Subhrajit Guhathakurta, Yanzhi Xu, *The Effects of Compact Development on Travel Behaviour, Energy Consumption and GHG Emissions: Lessons from Neighbourhoods in Phoenix Metropolitan Area*, Joint AESOP/ACSP Congress, July 15-19, Dublin, Ireland, 2013.

Steven French, **Wenwen Zhang**, *The Role of Modelling and Simulation in Creating Resilient Cities*, Joint AESOP/ACSP Congress, July 15-19, Dublin, Ireland, 2013.

## CONFERENCE POSTER/PRESENTATION

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Steven French, Camille Barchers, **Wenwen Zhang**, *How Should Urban Planners Be Trained to Handle Big Data?* NSF Workshop on Big Data and Urban Informatics. August 11-12, Chicago, Illinois. 2014.

Steven French, **Wenwen Zhang**, *From Component to Metro Region: Modeling the Benefits of Nonstructural Seismic Improvement*. NEES Nonstructural Project Meeting. October 26- 27, Reno, Nevada. 2012.

## INVITED PRESENTATION

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June 15, 2013 “*The Implementation of GIS Technology in Urban Transportation Planning*” at School of Urban Planning and Design (SUPD). Peking University Shenzhen Graduate School.

May 13, 2013 “*Using GIS model builder and Google API to Empower Transit Paper Maps Generation Process*” at Metropolitan Atlanta Rapid Transit Authority (MARTA), Atlanta, Georgia.

## **AWARDS**

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- 2013 Georgia Planning Association (GPA) Annual Outstanding Student
- 2011 Second Prize in Chinese Undergraduate Mathematical Modelling Competition
- 2008, 2010 Nandu Innovation Scholarship
- 2007, 2009, 2011 First Grade Scholarship from Zhejiang University
- 2007 China's National Scholarship (Granted by China's Department of Education)

## **CERTIFICATE**

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2010 The Shanghai Advanced-level English Interpretation Post Credentials Certificate