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EDUCATION

Ph.D.	Civil and Environmental Engineering	**University of Wisconsin-Madison**	2015 (expected)
M.S.	Computer Sciences	**University of Wisconsin-Madison**	2012
M.S.	Civil and Environmental Engineering	**University of Wisconsin-Madison**	2010
B.S.	Civil Engineering	**Tsinghua University, Beijing**	2008

ACADEMIC AWARDS AND HONORS

➢ **Patricia F. Waller Award**, Outstanding Paper in Highway Safety, *"Secondary Crash Identification on a Large-Scale Highway System"*, Transportation Research Board, 2014.

➢ Outstanding Paper of the Safety Data, Analysis and Evaluation Committee (ANB20), *"Secondary Crash Identification on a Large-Scale Highway System"*, Transportation Research Board, 2014.

➢ Invitation Recipient of the Phi Kappa Phi Honorable Society for excellent academic standing, 2013 – 2015.

PROFESSIONAL EXPERIENCE

August 2008 – present	**UNIVERSITY OF WISCONSIN,** Madison, WI	
	Research Assistant, Traffic Operations and Safety (TOPS) Laboratory	
	Major projects:	
	• Video Analytics for SHRP2 NDS Data, Federal Highway Administration	2014 – present
	• Identification and Evaluation of Secondary Crashes on Wisconsin State Trunk Highways, Wisconsin Department of Transportation	2011 – 2014
	• Comprehensive Evaluation of Wisconsin Roundabouts, Wisconsin Department of Transportation	2008 – 2011
August 2006 – May 2008	**TSINGHUA UNIVERSITY**, Beijing, China	
	Undergraduate Helper - Transportation Research Laboratory	
	Undergraduate Helper - Construction Laboratory	

TEACHING EXPERIENCE

Fall 2014 & Spring 2015	**UNIVERSITY OF WISCONSIN**, Madison, WI

Teaching Assistant – CEE 370: Introduction to Transportation Engineering
 (undergraduate course with a maximum of 70 students)

- Led two 2-hour lab sessions weekly throughout a 15-week semester setting.
- Assisted the instructor in developing homework, labs, and exams.
- Highly recognized for enthusiasm and responsiveness based on student surveys.

Spring 2015 **UNIVERSITY OF WISCONSIN**, Madison, WI

Qualified as a facilitator for College of Engineering's New Educators' Orientation (NEO) based on outstanding presentation skills demonstrated in a previous orientation.

Spring 2012 **UNIVERSITY OF WISCONSIN**, Madison, WI

Teaching Assistant – CEE 573: Highway Geometric Design
 (graduate course)

- Graded homework, projects, and exams.

PUBLICATIONS

Refereed Journals

1. **Zheng, Dongxi**, Madhav Chitturi, Andrea Bill, and David A. Noyce. "Analyses of Multiyear Statewide Secondary Crash Data and Automatic Crash Report Reviewing." Accepted for publication in *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2015.
2. Li, Zhixia, Madhav Chitturi, Andrea Bill, **Dongxi Zheng**, and David A. Noyce. "Automated Extraction of Horizontal Curve Information for Low-Volume Roads." In *Transportation Research Record 2472*, TRB, National Research Council, Washington, D.C., 2015, pp. 172-184.
3. **Zheng, Dongxi**, Madhav Chitturi, Andrea Bill, and David A. Noyce. "Secondary Crash Identification on a Large-Scale Highway System." In *Transportation Research Record 2432,* TRB, National Research Council, Washington, D.C., 2015, pp. 82-90. **Winner of 2014 TRB Patricia F. Waller Best Paper Award.**
4. Li, Zhixia, Madhav V. Chitturi, Andrea R. Bill, **Dongxi Zheng**, and David A. Noyce. "Automated Extraction of Horizontal Curve Information for Low-Volume Roads." Accepted for publication In *Transportation Research Record*, TRB, National Research Council, Washington, D.C., 2015.
5. **Zheng, Dongxi**, Xiao Qin, Ross Tillman, and David A. Noyce. "Measuring Modern Roundabout Traffic Conflict Exposure." In *Journal of Transportation Safety and Security*, Taylor & Francis, Volume 5, Issue 2, 2013, pp. 208-223.
6. Li, Zhixia, Madhav V. Chitturi, **Dongxi Zheng**, Andrea R. Bill, David A. Noyce. "Modeling Reservation-Based Autonomous Intersection Control in VISSIM." In *Transportation Research Record 2381,* TRB, National Research Council, Washington, D.C., 2013, pp. 81-90.

Refereed Conference Publications

1. **Zheng, Dongxi**, Madhav Chitturi, Andrea Bill, and David A. Noyce. "Analyses of Multiyear Statewide Secondary Crash Data and Automatic Crash Report Reviewing." 94th Annual TRB Meeting Compendium of Papers DVD, Washington, D.C., January, 2015.
2. **Zheng, Dongxi**, Madhav V. Chitturi, Andrea R. Bill, and David A. Noyce. "Secondary Crash Identification on a Large-Scale Highway System." 93rd Annual TRB Meeting Compendium of Papers DVD, Washington, D.C., January, 2014.
3. Li, Zhixia, Madhav V. Chitturi, **Dongxi Zheng**, Andrea R. Bill, and David A. Noyce. "Next Generation Intersection Control Algorithm for Autonomous Vehicles." 92nd Annual TRB Meeting Compendium of Papers DVD, Washington, D.C., January, 2013.
4. Li, Zhixia, Madhav V. Chitturi, **Dongxi Zheng**, Andrea R. Bill, and David A. Noyce. "Modeling Reservation-Based Autonomous Intersection Control VISSIM." 92nd Annual TRB Meeting Compendium of Papers DVD, Washington, D.C., January, 2013.
5. **Zheng, Dongxi**, Madhav V. Chitturi, Andrea R. Bill, and David A. Noyce. "Critical Gaps and Follow-up Headways at Congested Roundabouts." 91th Annual TRB Meeting Compendium of Papers DVD, Washington, D.C., January, 2012.
6. **Zheng, Dongxi**, Xiao Qin, Ross Tillman, and David A. Noyce. "Negotiation-Based Conflict Exposure Methodology in Roundabout Crash Pattern Analysis." 89th Annual TRB Meeting Compendium of Papers DVD, Washington, D.C., January, 2010.

Research Reports

1. **Zheng, Dongxi**, Madhav V. Chitturi, Andrea R. Bill, and David A. Noyce. "Identification and Evaluation of Secondary Crashes on Wisconsin State Trunk Highways." Traffic Operations and Safety (TOPS) Laboratory, University of Wisconsin – Madison, 2014, 61 pp.
2. **Zheng, Dongxi**, Madhav V. Chitturi, Andrea R. Bill, and David A. Noyce. "Comprehensive Evaluation of Wisconsin Roundabouts. Volume 1: Operation Findings." Traffic Operations and Safety (TOPS) Laboratory, University of Wisconsin – Madison, 2011, 88 pp.

ACADEMIC AND PROFESSIONAL SERVICES

• Coordinator, University of Wisconsin-Madison Transportation Research Programs (UWTP) Seminars	2014 – present
• Reviewer, Journal of Transportation Engineering	2014 – present
• Reviewer, Journal of Intelligent Transportation Systems	2014 – present
• Volunteer, Transportation Research Board Freeway Operation Committee. Update research circular	2013
• Reviewer, International Conference of Chinese Transportation Professionals	2014 – present
• Reviewer, Intelligent Transportation Systems Society Conference	2014 – present
• Reviewer, International Conference of Road Safety and Simulation	2011
• Reviewer, Journal of Transportation Safety & Security	2011 – present
• Reviewer, Transportation Research Board (TRB). Various committees	2010 – present

PROFESSIONAL AFFILIATIONS

Transportation Research Board, National Academy of Sciences

• Friend, Safety Data, Analysis and Evaluation Committee (ANB20)	2010 – present
• Friend, Traffic Control Devices Committee (AHB50)	2009 – present
• Friend, Vehicle-Highway Automation Committee (AHB30)	2012 – present
• Friend, Highway Capacity and Quality of Service Committee (AHB40)	2013 – present
• Friend, Highway Safety Performance Committee (ANB25)	2010 – present
• Friend, Vehicle User Characteristics Committee (AND10)	2012 – present
• Friend, User Information Systems Committee (AND20)	2012 – present
• Friend, Visualization in Transportation Committee (ABJ95)	2013 – present
• Friend, Highway/Rail Grade Crossings Committee (AHB60)	2013 – present

Institute of Transportation Engineers

• Student member	2013

Chinese Overseas Transportation Association (COTA)

• Student member	2009 – 2011

TRAINING

- Teaching Improvement Program (TIP) by College of Engineering in University of Wisconsin – Madison, January, 2015.
- New Educators' Orientation (NEO) by College of Engineering in University of Wisconsin – Madison, August 2014.
- Quadstone Paramics Training by Braidwood Associates, May 2014.
- Roundabout Training by WisDOT & Ourston Roundabout Engineering, Inc., December 2008.

SOFTWARE DEVELOPMENT

- *SCND_IN_DB*. A python+java program to identify secondary crashes from a relational database of a highway network structure and crashes linearly referenced on it.
- *GapAnalyzer*. A java program that extracts gap and headway data for roundabouts based on timestamps of vehicle events.
- *TC_MLM*. A java program that calculates the critical gap (t_c) of drivers entering a roundabout using the state of the art maximum likelihood method.
- *FastestPathReviewer*. A java program to assist collecting vehicle trajectory data in roundabouts with a video display.

TECHNICAL SKILLS

Transportation Software	VISSIM, CORSIM, PASSER, and other mainstream traffic modeling and simulation software packages
Geographic Information System	ArcGIS, GRASS GIS, etc.
Programming Language	Java, Python, Matlab, R, C/C++, Visual Basic, and Fortran

Software Platform	Windows Phone Development, S2E, Hadoop, etc.
Computer Sciences	Computer Vision, Computational Geometry, Database Management System, Operating System, Compiler Optimization, and Data Structure

RESEARCH INTERESTS AND STRENGTHS

With ascending specialization:

- Transportation Safety
- Human Factors
- Intelligent Transportation Systems (ITS)
- Autonomous Vehicles
- Traffic Control Devices
- Modern Roundabouts
- Traffic Incident Management
- Transportation Network Optimization
- Driving Simulator
- Data Visualization
- Distributed Computing on Big Data
- Advanced Driver Assistance Systems (ADAS)