

CI (JESSIE) YANG

Graduate Research Assistant
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Dept. Civil and Environmental Engineering
Rutgers, The State University of New Jersey
96 Frelinghuysen Rd., Piscataway, NJ 08854

EDUCATION

Rutgers University, New Brunswick, New Jersey

Ph.D. in Civil and Environmental Engineering (Transportation studies), January 2015, GPA: 3.85

M.S. in Statistics (Statistics), January 2014, GPA: 3.95

Texas A&M University, Kingsville, Texas (TAMUK)

M.S. in Environmental Engineering (Air quality modeling), December 2009, GPA 3.80

People's University of China, Beijing (RUC)

B.S. in Environmental Science, July 2007, GPA 3.14

TECHNICAL SKILLS

Programming: R, SAS, SQL, MATLAB, Excel-VBA

Applications: ArcGIS, SQL server, Microsoft Office (Word, Excel, Powerpoint, Access)

Certification: SAS Base, SAS Advance, Engineer in Training (EIT)

RELEVANT COURSES

| | | | |
|------------------------------|----------------------------|------------------------------|---------------------------|
| Applied Time Series Analysis | Regression Analysis | Traffic Operations | Seminar in Urban Planning |
| Design of Experiment | Survey Sampling | Traffic Engineering | Environmental Informatics |
| Non-parametric Stat | Numeric Analysis | Public Transportation System | Environmental Data |
| Interpretation of Data | Deterministic models in IE | Transportation and Land Use | Analysis |

WORK EXPERIENCE

Rutgers University, Center for Advanced Infrastructure and Transportation (CAIT), New Brunswick, NJ

Graduate Research Assistant, May 2014-Present

- New Jersey vehicle crash database (Plan4Safety) management and data quality control.
- Perform data quality analysis and safety & fatality risk modeling using Plan4Safety.

Rutgers University, Department of Civil and Environmental Engineering, New Brunswick, NJ

Graduate Research Assistant, September 2012-Present

- Assisted Dr. Eric Gonzales and group members on various transportation research projects in a fast-paced computer lab environment.
- Gathered literatures/data and conducted research using large GPS datasets from Taxis to Understand Public Transit Demand and Mode Choice in NYC as a major investigator.
- Designed systematic procedures to clean, filter, manipulate and visualize large-scale spatial taxi datasets using ArcGIS, SQL server and Excel.
- Developed a series of numerical and statistical methods to analyze and model taxi demand such as linear regression, Poisson/negative binomial regression, logistic regression, GLM to discover and predict the pattern of taxi demand using SAS and R.
- Accomplishments include two first-authored peer-reviewed Journal publications and four conference proceedings.

Texas Environmental Studies and Analysis (TX-ESA), Kingsville, TX

Environmental Data Analyst, February 2010-August 2010

- Worked with a team of 10 on wind farm projects under the supervision of Dr. Margaret Land
- Performed environmental risk assessment of wind energy turbines on wildlife (birds and bats) count data and survival analysis on carcass removal time, and assessed on environmental impacts using SAS and Excel.

Texas A&M University, Department of Environmental Engineering, Kingsville, TX

Graduate Research Assistant, August 2007- December 2009

- Assisted Dr. Kuruvilla John and students on air quality research project "Corpus Christi Ozone Near Non-attainment Area Air Quality Research and Planning Activities".

- Collected and analyzed air quality monitoring data for the purpose of identifying the sources and corresponding contribution of each source of air pollutants particulate matter (PM) and volatile organic compounds (VOC) in Corpus Christi area.
- Utilized EPA's Positive Matrix Factorization (PMF) to perform multivariate factor analysis.

ACTIVITIES & HONORS

- Awarded Outstanding Student in ITS-NJ Annual Meeting, 2014
- Awarded WTS-GNY Leonard Braun Memorial Graduate Scholarship, 2013
- Volunteer for the Alan M Voorhees Transportation Center (VTC) New Brunswick Ciclovía Survey, 2013
- Student Poster winner ITE Northeastern District Meeting, 2013
[On the newsletter <http://www.neite.org/The%20Chronicle/07-2013.pdf>]
- Awarded School of Engineering (SOE) Fellowship for two years at Rutgers University, 2010 & 2011
- Nominated for the "2008 Who's Who Among Students in American Universities and Colleges" by the Department of Environmental Engineering at TAMUK (2008)
- First-class award for voluntary service at RUC, 2004

PUBLICATIONS

Peer-reviewed Journals:

Yang, Ci and Eric Gonzales (2014), "Modeling Taxi Trip Demand by Time of Day in New York City". *Transportation Research Record* (In press)

Yang, Ci, Ender Morgul, Eric Gonzales, and Kaan Ozbay (2014), "Comparison of Mode Cost by Time of Day for Non-driving Airport Trips to and from New York City's Pennsylvania Station". *Transportation Research Record* (In press)

Peer-reviewed Conference Proceedings:

Yang, Ci and Eric Gonzales (2014) "Modeling Taxi Trip Demand by Time of Day in New York City", Transportation Research Board (TRB) 93rd Annual Meeting, 12-16 Jan, Washington D.C.

Yang, Ci, Ender Morgul, Eric Gonzales, and Kaan Ozbay (2014) "Comparison of Mode Cost by Time of Day for Non-driving Airport Trips to and from New York City's Pennsylvania Station", Transportation Research Board (TRB) 93rd Annual Meeting, 12-16 Jan, Washington D.C.

Other Publications and Reports:

Gonzales, Eric, Ci Yang, Ender Morgul, and Kann Ozbay (2014), "Modeling Taxi Demand with GPS Data from Taxis and Transit". Mineta National Transit Research Consortium (MNTRC) Report 12-16 (Released on July 21, 2014), available [HERE](#), also covered in media by WFSB-TV 3, TickerTech.com, and Securities Technology Monitor

Yang, Ci (2012) "Modeling Stream Flow Extremes Under Non-time-stationary Conditions", International Conference on Computational Methods in Water Resources (CMWR), 17-21 June, Champaign, IL

Yang, Ci (2009) "Source Apportionment of Volatile Organic Compounds in Urban Areas of South Texas Using Positive Matrix Factorization" Masters' Thesis, Texas A & M University, Kingsville, TX

Yang, Ci (2007) "An analysis on the Development of Recycling Regenerated Resource Industry" Bachelor's Thesis, People's University of China, Beijing, China

Yang, Ci (2004) "A Discussion of Energy use on Public Buildings in Universities of Beijing" Bachelor's Project, People's University of China, Beijing, China

PRESENTATIONS

Conference Presentations:

Yang, Ci and Eric Gonzales (2014) "Modeling Taxi Demand and Supply in New York City Using Large-Scale Taxi GPS Data", Workshop on Big Data and Urban Informatics (BDUIC), 2nd meeting, 11-12 August, Chicago.

Yang, Ci and Eric Gonzales (2014) "Modeling Taxi Trip Demand by Time of Day in New York City", Transportation Research Board (TRB) 93rd Annual Meeting, 12-16 January, Washington D.C.

Yang, Ci, Ender Morgul, Eric Gonzales, and Kaan Ozbay (2014) “Comparison of Mode Cost by Time of Day for Non-driving Airport Trips to and from New York City's Pennsylvania Station” Transportation Research Board (TRB) 93rd Annual Meeting, 12-16 January, Washington D.C.

Yang, Ci, and Eric Gonzales (2013) “Analysis of Taxi Demand versus Subway Accessibility in New York City” Institute of Transportation Engineers (ITE) Northeastern District Annual Meeting, 22-24 May, Northampton, Massachusetts. **(Best Poster Award)**

Yang, Ci and David Hill (2012) “Modeling Stream Flow Extremes Under Non-time-stationary Conditions” International Conference on Computational Methods in Water Resources (CMWR), 17-21 June, Champaign, IL

Other Project Presentation:

Townle, Chris, Ci Yang, Ioanna Tsoulou, Kuo Ren and Ruchi Shrivastava (2013) “New Brunswick Ciclovía”, **Walking and Cycling** (Course No. 970:660) Rutgers University

Yang, Ci and Ren Kuo (2013) “The Kingdom of Bicycles - China”, **Walking and Cycling** (Course No. 970:660) Rutgers University

Yang, Ci (2013) “Taxi Trip Generation in New York City”, **Transportation and Land Use** (Course No. 970:554) Rutgers University

MEMBERSHIP

- American Society of Civil Engineers
- Friends of Nature in China

REFERENCE

Dr. Eric Gonzales (gonzales@umass.edu) <http://cee.umass.edu/dr-eric-gonzales-phd>

Dr. Robert Noland (rnoland@rutgers.edu) <http://policy.rutgers.edu/faculty/noland/>

Dr. Jing (Peter) Jin (peter.j.jin@rutgers.edu) <http://www.civeng.rutgers.edu/fac/jing-peter-jin>