

Liangjie Xue

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Education

PhD, Industrial Engineering, with emphasis in Operations Research, expected May 2012.
Arizona State University, Tempe, Arizona.
Dissertation topic: *Dynamic Management of Inspection Effort Allocation: An Application in POE Inspection*
Advisor: Dr. Rene Jesus Villalobos.

Master of Science in Engineering, Industrial Engineering, December 2007.
Arizona State University, Tempe, Arizona.

Bachelor of Engineering, Automation (Control System), Zhejiang University, Hangzhou, Zhejiang, China, June 2006.
Honor's Thesis: Research on Fast Input and Slow Output System Identification Advisor:
Dr. Xi Chen

Experience

- Graduate Research Associate, International Logistics and Productivity Improvement Lab (ILPIL), CIDSE, Arizona State University, August 2008 – May 2011
Dr. Rene Jesus Villalobos, Associate Professor
 - Investigated metrics for logistics performance. Studied factors that influence logistics performance and developed metrics for logistics performance. Wrote customized data links in Python to parse external third party data source. Implemented statistical models in “R” and deployed a web application prototype
 - Studied on intelligent food defense systems for international supply chain, a project from Department of Homeland Security. Designed the procedure to optimally utilize scarce inspection resources using optimization methods. A prototype was implemented in MATLAB
 - In charge of forecasting the border crossing traffic of Nogales Port-of-Entry, a project from Arizona Department of Transportation. Used “R” to build various statistical models to conduct the forecast. A follow up study conducted in 2011 showed the error of yearly forecast of 2009 is less than 1%.
- Graduate Research Assistant, Logistics, Optimization, and Control Lab, CIDSE, Arizona State University, May 2007 – May 2008
Dr. Esma S. Gel, Associate Professor, Dr. Ahmet B. Keha, Assistant Professor

- Studied the application of integer programming in data mining, especially on the rule reduction of rule based data mining methods.

Graduate Research Associate in the Department of Industrial Engineering, Arizona State University, May 2007 – May 2008

Dr. Ronald G. Askin, Professor, department Chair

- Researched on the problem of optimally assigning workers to minimize the make span with the collaborating factor between each workers considered.

Skills

- Data mining and statistical modeling. Related Software includes MATLAB, R, JMP and Minitab.
- Optimization. Related software includes AMPL, CPLEX, Gurobi and MATLAB
- Able to program in Python, C/C++ and shell script. Familiar with SQL
- Familiar with Microsoft office suit
- Well organized. Experience in working in version controlled environment
- Public speaking, well communication

Publications

Conference presentations

- Rene J. Villalobos and **Liangjie Xue**, “Integrated Flexible Inspection System for Port-of-Entry Container Inspection”, *Annual meeting of Institute for Operations Research and the Management Sciences (INFORMS)*, Austin, TX, Nov. 7-10, 2010
- Rene J. Villalobos and **Liangjie Xue**, “Forecast of the traffic flow in Nogales Port of Entry Poster,” *Center for Engineering Logistics and Distribution Fall Meeting (CELDi)*, Chicago, IL, Nov. 5, 2009.
- Ronald G. Askin and **Liangjie Xue**, “Specifying Team Sizes with Interdependent Tasks and Nonlinear Collaborating Functions”, *Annual meeting of Institute for Operations Research and the Management Sciences (INFORMS)*, Washington, DC, Oct. 12-15, 2008.
- Rene J. Villalobos and **Liangjie Xue**, “Forecast of the traffic flow in Nogales Port of Entry Poster,” *Center for Engineering Logistics and Distribution Fall Meeting (CELDi)*, Dallas, TX, Oct. 28, 2008.

Technical Report

- Rene J. Villalobos, Arnold Maltz, **Liangjie Xue**, Octavio Sánchez, Laura Vázquez (2009), “Forecast and Capacity Planning for Nogales’ Ports of Entry”, Final Report to Arizona Dept. of Transportation accessible on-line at:
<http://www.borderplanning.fhwa.dot.gov/nogalesStudy/pdfs/completeReport.pdf>

Work Submitted

- **Liangjie Xue**, Arnold Maltz and Rene J. Villalobos, “Forecast and Capacity Planning for Nogales’ Ports of Entry”

Work in progress

- **Liangjie Xue** and Rene J. Villalobos, “Dynamic Inspection Effort Allocation With Resource Constraints In Port-Of-Entry Environment”

Awards and Honors

- Winner of the Mathematical contest on Shade Planning (City of Phoenix, AZ), 2007
- Fellowship from ASU (ASU, Tempe, AZ), 2006
- Merit Student and Academic scholarship winner, ZJU (Zhejiang, China), 2003—2005

Professional Memberships

- Institute for Operations Research and the Management Sciences (INFORMS)
- Omega Rho, The Honor Society of INFORMS
- Manufacturing and Service Operations Management Society (MSOM)

Service

- President, INFORMS Arizona State University Student Chapter 2009-2010. The chapter won Summa Cum Laude prize in 2010, top award for student chapters during my presidency.

Language Proficiency

- Mandarin (Native language)
- English (Fluent)