

# **Xuejun (Jason)Liu**

E-MAIL: [xuejun.liu@mavs.uta.edu](mailto:xuejun.liu@mavs.uta.edu)

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## **TEACHING AND RESEARCH INTERESTS**

- Automation, Controls and Instrumentation, Programmable Logic Controller (PLC)
- Computer Aided Manufacturing (CAM), Manufacturing System Design and Simulation
- Manufacturing Process, Lean Manufacturing Systems
- Electrical Systems, Circuits and Devices
- Engineering Materials
- Engineering Design
- Hydraulics and Pneumatics

## **EDUCATION**

### **University of Texas at Arlington (UTA), Arlington, TX**

Ph.D. candidate in Industrial and Manufacturing Engineering, 2017 - Present

### **New Jersey Institute of Technology (NJIT), Newark, NJ**

M.S. in Industrial and Manufacturing Engineering, 2012

Major: Transportation Engineering

### **Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China**

M.S. in Industrial and Manufacturing Engineering, 2007

Major: Technology Economics and Management

### **Dalian Jiaotong University, Dalian, China**

B.S. in Manufacturing Engineering, 2001

Major: Railway Vehicle Engineering

## **INDUSTRIAL EXPERIENCE**

### **2012- 2017 Consultant**

#### **China Railway Rolling Stock Corporation Limited (CRRC)**

#### **Nanjing, China; Dallas, TX; New York, NY; Philadelphia, PA**

- Review manufacturing process of rail car manufacturing and identify opportunities to improve manufacturing process
- Set up and maintain equipment for rail car manufacturing
- Provide technical support on automatic control process and PLC-based system design
- Determine appropriate methods to process products, including cutting, welding, casting, or machining.
- Review manufacturing instructions
- Review Bills of Materials (BOM) and optimize material inventory
- Review quality control procedure for manufacturing process
- Review and update manufacturing schedules
- Provide technical support to railway marketing investigation in USA
- Provide technical support to project management
- Project risk management and control
- Seek opportunity for continuous improvement of manufacturing and business process through data collection and analysis

# **Xuejun (Jason)Liu**

Permanent resident

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Phone: 7152939038

## **2007- 2009 Project Manager & Senior Manufacturing Engineer**

### **China South Locomotive & Rolling Stock Corporation (CSR) Nanjing, China**

- Identify opportunities to improve manufacturing process
- Implement changes to improve the quality of products
- Optimize the inventory of raw materials and components to reduce storage costs
- Negotiate project contract, both technical and business
- Develop, review and maintain project schedule
- Search qualified suppliers and organize FAI (First Article Inspection)
- Manage and review project cost
- Coordinate cross functional teams of customer service, engineering, sourcing, manufacturing, quality and supply chain
- Coordinate interface design among other subsystem supplier, such as signaling system, train control system, electrical system, actuator interface, etc.
- Manage RAMS (Reliability, Availability, Maintainability and Safety)

## **2001- 2004 Manufacturing Engineer**

### **China South Locomotive & Rolling Stock Corporation (CSR)**

- Automatic control and program laser cutter using Programmable Logic Controller (PLC)
- Control and machining the frame of bogie using SolidWorks
- Design manufacturing process of rail car manufacturing
- Determine appropriate methods to process products, such as welding, casting, bending, or machining.
- Prepare manufacturing instructions
- Design fixtures and jigs for manufacturing process
- Develop working procedure for oil hydraulics press to install wheels and axles
- Develop specifications for tools and other equipment to assist manufacturing process
- Prepare Bills of Materials to purchase and logistics department

## **TEACHING EXPERIENCE**

### **2017 Fall Teaching Assistant University of Texas at Arlington (UTA), Arlington, TX Department of Industrial, Manufacturing, & Systems Engineering Course taught: IE 3301 Engineering Probability**

- Develop course lectures
- Develop syllabus, homework, lecture notes, quizzes and exams
- Hold office hours
- Advise students
- Grade homework, lab reports, quizzes and exams

### **2010-2011 Instructor New Jersey Institute of Technology (NJIT), Newark, NJ Course taught: CET 411 Cost Estimating; ENE 335 Engineering Cost Analysis and Control**

- Conduct lectures
- Develop syllabus, homework, lecture notes, quizzes and exams
- Hold office hours
- Advise students
- Grade homework, labs, quizzes and exams

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## **2005-2006 Teaching Assistant**

**Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China**

**Course taught: Engineering Economics**

- Conduct discussions for the course
- Conduct lectures in the absence of instructor
- Hold office hours
- Proctor exams, develop and grade homework solutions
- Grade quizzes, lab reports and exams

## **RESEARCH EXPERIENCE**

**University of Texas at Arlington (UTA) Center on Stochastic Modeling, Optimization, & Statistics**

**Research Assistant 2017- present**

**Supervised by: Dr. Jay Rosenberger and Dr. Victoria Chen**

- Optimize public transit system operation by developing simulation and stochastic optimization methods to improve decision-making.
- Develop a comprehensive discrete-event simulation model in evaluating assignments and recovery policies.
- Propose a statistics based approach for solving the two-stage stochastic programming formulation for fleet assignment using demand driven dispatch.

**Nanjing University of Aeronautics and Astronautics (NUAA)**

**Research Assistant 2004 - 2007**

**Project: Post Evaluation of Highway, Xuzhou, China Funded by Jiangsu Lianxu Expressway CO., LTD**

- Evaluate project sustainability
- Perform RAMS (Reliability, Availability, Maintainability and Safety)
- Develop Life Cycle Assessment (LCA): Multi-objective decision-making is developed to promote more sustainable solutions and it considers economic, environmental, and societal impacts from a life cycle perspective.

**New Jersey Institute of Technology**

**Research Assistant 2010 - 2012**

- Develop cycle life cost for high speed rail: case study of Euro star
- Analyze cost benefit of public transportation systems
- Optimize train fleet and size for rail transit operation

## **LABORATORY EXPERIENCE**

**2017 Fall Lab Assistant University of Texas at Arlington (UTA), Arlington, TX**

**Department of Industrial, Manufacturing, & Systems Engineering**

**Lab: Center on Stochastic Modeling, Optimization, & Statistics (COSMOS)**

- Assist students in their coursework/laboratory experiments
- Update lab manual
- Grade lab reports

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## **FELLOWSHIP, SCHOLARSHIP AND AWARD**

- Graduate Assistance for Areas of National Need (GAANN) Fellowship, UTA, 2017
- Graduate Teaching Assistant Scholarship, UTA, 2017
- 2011 Best Teaching Award, NJIT, 2011
- Graduate Scholarship, NJIT, 2010-2011

## **PROFESSIONAL AFFILIATIONS**

- Member, Society of Manufacturing Engineers (SME)
- Member of Institute of Transportation Engineers (ITE).
- International Project Management Committee (IPMC)

## **SELECTED PUBLICATION**

- **Xuejun Liu**, C.M. Mi, Y.Y. Wang, "Optimal Train Size and Headway for Urban Rail Transit System," Applied Mechanics and Materials, vol.253-255, pp.2020-2023, 2013.
- **Xuejun Liu**, Zhuo Zhang, and Chuanmin Mi, "Study on Goal Sustainability Assessment of Lianyungang - Xuzhou Expressway", Modern Industry Engineering and Management Seminar, April, 2006.
- **Xuejun Liu**, and Zhuo Zhang, "Real Option and Investment Strategy for Real Estate", November, 2005.

## **CERTIFICATION & LICENSE**

- International Project Management Professional (IPMP) Certificate, Certification Number: CN2005D0772, IPMA, 2005.
- Internal Auditor Qualification Certificate, Certification Number: HXHK-Q-2007-1263-10417, 2007.
- Training Certificate of Design-Quality-Process, France, 2002.

## **SKILLS**

- SolidWorks, AutoCAD, Pro-E
- Ladder Logic Programming, Ladder Diagram (PLC)
- Microsoft Project
- Visio, Power Point, Excel.
- Minitab
- SAS
- Blackboard