

XINGLONG JU, Ph.D.

Lecturer of Management Information Systems

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EDUCATION

<i>Ph.D. and M.S., Industrial Engineering</i> – Thesis: MARS Knot Positioning and Global Optimization The University of Texas at Arlington	Aug. 2014 - Aug. 2019 Arlington, TX, USA
<i>M.S., Computer Science and Technology</i> China University of Petroleum	Sep. 2010 - Jun. 2013 Qingdao, SD, CN
<i>B.S., Software Engineering</i> China University of Petroleum	Sep. 2006 - Jul. 2010 Qingdao, SD, CN

WORKING EXPERIENCES

<i>Lecturer</i> The University of Oklahoma – Management Information Systems	Jan. 2022 - PRESENT Norman, OK, USA
<i>Postdoctoral Research Associate</i> Cornell University	Jan. 2021 - Dec. 2021 Ithaca, NY, USA
<i>Postdoctoral Researcher</i> The University of Texas Southwestern Medical Center – Medical Artificial Intelligence and Automation (MAIA) Laboratory	Mar. 2020 - Dec. 2020 Dallas, TX, USA
<i>Adjunct Professor</i> The University of Texas at Arlington	Jan. 2020 - May 2020 Arlington, TX, USA
<i>Postdoctoral Research Associate</i> The University of Texas at Arlington – Center on Stochastic Modeling, Optimization, & Statistics (COSMOS)	Sep. 2019 - Jan. 2020 Arlington, TX, USA
<i>Graduate Teaching/Research Assistant</i> The University of Texas at Arlington – Center on Stochastic Modeling, Optimization, & Statistics (COSMOS)	Aug. 2014 - Aug. 2019 Arlington, TX, USA
<i>Data Analyst</i> CSX Railroad Transportation Company (Fortune 500)	Jan. 2017 - Jun. 2017 Jacksonville, FL, USA
<i>Database Engineer</i> Longtu Information Technology Company	Jun. 2011 - Jun. 2012 Dongying, SD, CN

RESEARCH INTERESTS

Machine Learning; Artificial Intelligence; Data Analytics; Operations Research; Optimization; Algorithm Design; Data Visualization; Software Development; Artificial Intelligence in Healthcare, Medical Image Analysis, Brain Data Analysis, and Renewable Energy.

SKILLS

Python, R, SQL, C/C++, Java, C#, Matlab, VB/VBA, JSP, HTML, JavaScript, GeoPandas, MNE-Python, FreeSurfer, PyCUDA, Tensorflow, OpenCV, OpenGL, Linux, Git, Github, L^AT_EX, CPLEX

PUBLICATIONS

ACCEPTED JOURNAL PUBLICATIONS

- [1] **Xinglong Ju***, Jay M. Rosenberger, Victoria C.P. Chen, and Feng Liu. Global optimization on non-convex two-way interaction truncated linear multivariate adaptive regression splines using mixed integer quadratic programming. *Information Sciences*, 597:38–52, 2022. (IF: 8.233)
- [2] Fangyun Bai, **Xinglong Ju**, Shouyi Wang, Wenyong Zhou, and Feng Liu. Wind farm layout optimization using adaptive evolutionary algorithm with monte carlo tree search reinforcement learning. *Energy Conversion and Management*, page 115047, 2022. (IF: 11.533)
- [3] Jingmei Yang, **Xinglong Ju**, Feng Liu, Onur Asan, Timothy S Church, and Jeff O Smith. Prediction for the risk of multiple chronic conditions among working population in the united states with machine learning models. *IEEE Open Journal of Engineering in Medicine and Biology*, 2:291–298, 2021.
- [4] **Xinglong Ju**, Victoria C.P. Chen, Jay M. Rosenberger, and Feng Liu. Fast knot optimization for multivariate adaptive regression splines using hill climbing methods. *Expert Systems with Applications*, 171:114565, 2021. (IF: 8.665)
- [5] Feng Liu, **Xinglong Ju***, Ning Wang, Li Wang, and Wei-Jen Lee. Wind farm macro-siting optimization with insightful bi-criteria identification and relocation mechanism in genetic algorithm. *Energy Conversion and Management*, 217:112964, 2020. (IF: 11.533)
- [6] **Xinglong Ju**, Feng Liu, Li Wang, and Wei-Jen Lee. Wind farm layout optimization based on support vector regression guided genetic algorithm with consideration of participation among landowners. *Energy Conversion and Management*, 196:1267–1281, 2019. (IF: 11.533)
- [7] **Xinglong Ju** and Feng Liu. Wind farm layout optimization using self-informed genetic algorithm with information guided exploitation. *Applied Energy*, 248:429–445, 2019. (IF: 11.446)
- [8] **Xinglong Ju**, Youxiang Duan, Cheng Ma, and Nanhai Xiu. A dynamic update method for user experience time of web services. *Journal of Computer Engineering and Science*, 35.12:120–125, 2013.
- [9] Cheng Ma, **Xinglong Ju**, Youxiang Duan, and Fuchang Xu. A dynamic update method for user experience time of web services. *Journal of Huazhong University of Science and Technology (Natural Science Edition)*, S2:88–92, 2013.

CONFERENCE PRECEEDINGS

- [10] Prosper K Anyidoho, **Xinglong Ju**, Rachel Davidson, and Linda Nozick. A machine learning approach for predicting hurricane evacuee destination location using smartphone location data. *Available at SSRN 4345671*, 2023.
- [11] Guihong Wan, Meng Jiao, and **Xinglong Ju**. Electrophysiological brain source imaging via combinatorial search with provable optimality. In *Thirty-Seventh AAAI Conference on Artificial Intelligence*, 2023.
- [12] Meng Jiao, Feng Liu, Onur Asan, Roshanak Nilchiani, **Xinglong Ju**, and Jing Xiang. Brain source reconstruction solution quality assessment with spatial graph frequency features. In *International Conference on Brain Informatics*, pages 175–183. Springer, 2022.
- [13] **Xinglong Ju**, Victoria CP Chen, Jay M Rosenberger, and Feng Liu. Knot optimization for multivariate adaptive regression splines. In *Proceedings of the 2019 IISE Annual Conference*. Institute of Industrial and Systems Engineers (IISE), 2019.
- [14] **Xinglong Ju**, Youxiang Duan, Cheng Ma, and Haiyan Ju. Predicting service execution time towards a runtime monitoring approach. In *2013 International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery*, pages 221–224. IEEE, 2013.
- [15] **Xinglong Ju**, Youxiang Duan, Fuwang Song, and Haiyan Ju. New features and technologies in lwd-rtdi data platform. In *2013 International Digital And Intelligent Fields Conference and Exhibition*, 2013.
- [16] Cheng Ma, Youxiang Duan, **Xinglong Ju**, and Fuchang Xu. Ws-s evaluation based on user preferences and ranking mechanism. In *2013 International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery*, pages 298–301. IEEE, 2013.
- [17] Fuwang Song, **Xinglong Ju**, Maoan Wei, and Fujing Song. Zigbee based oilfield 3d positioning system.

In 2013 *International Digital And Intelligent Fields Conference and Exhibition*, 2013.

PRESENTATIONS

- 2022 INFORMS Annual Conference Oct. 2022
Xinglong Ju, Jay M. Rosenberger, Victoria C. P. Chen and Feng Liu Indianapolis, IN, USA
– Global Optimization On Non-convex Two-way Interaction Truncated Linear Multivariate Adaptive Regression Splines Using Mixed Integer Quadratic Programming
- 2021 INFORMS Annual Conference Oct. 2021
Xinglong Ju, Linda K. Nozick and Rachel Davidson Anaheim, CA, USA
– A Novel Trajectory Data Mining Method For Massive Smartphone Location Data With Applications In Hurricane Evacuation Behavior Analysis
- 2021 NERCCS: Fourth Northeast Regional Conference on Complex Systems Mar. 2021
Xinglong Ju, and Feng Liu Online, USA
– Optimizing Wind Farm Efficiency with Self-Adaptivity Mechanism in Evolutionary Algorithm
- 2020 INFORMS Annual Conference Nov. 2020
Xinglong Ju, Jay M. Rosenberger and Victoria C. P. Chen Online, USA
– Global Optimization Of Two-way Interaction Truncated Linear MARS
- 2019 INFORMS Annual Conference Nov. 2020
Xinglong Ju, Victoria C. P. Chen, Jay M. Rosenberger and Feng Liu Seattle, WA, USA
– Multivariate Adaptive Regression Splines Knot Selection and Global Optimization
- 2019 IISE Annual Conference & EXPO May 2019
Xinglong Ju, Victoria C. P. Chen, Jay M. Rosenberger and Feng Liu Orlando, FL, USA
– Knot Optimization for Multivariate Adaptive Regression Splines
- 2019 Applied Energy Symposium: MIT A+B May 2019
Xinglong Ju, and Feng Liu Boston, MA, USA
– Wind Farm Layout Optimization based on Self-Informed Genetic Algorithm with Participation Decisions from Landowners

TEACHING EXPERIENCES

- BIA 4743: Data Mining for Business Intelligence
The University of Oklahoma (Instructor) Spring 2023
- MIT 5032: Analytics Programming Language (Python 2)
The University of Oklahoma (Instructor) Spring 2023
- MIS 3033: Business Programming Languages
The University of Oklahoma (Instructor) Spring 2023
- MIS 3013: Introduction to Programming
The University of Oklahoma (Instructor) Spring 2023
- MIS 3033: Business Programming Languages
The University of Oklahoma (Instructor) Fall 2022
- MIS 3013: Introduction to Programming
The University of Oklahoma (Instructor) Fall 2022
- MIS 3033: Business Programming Languages
The University of Oklahoma (Instructor) Spring 2022
- MIS 3013: Introduction to Programming

The University of Oklahoma (Instructor)	Spring 2022
IE 5317: Probability and Statistics	
The University of Texas at Arlington (Instructor)	Fall 2021
IE 5301: Operations Research	
The University of Texas at Arlington (Instructor)	Fall 2021
IE 2308: Economics for Engineers	
The University of Texas at Arlington (Instructor)	Spring 2020
IE 6318 & IE 4300: Data Mining & Analytics	
The University of Texas at Arlington (Graduate Teaching Assistant)	Spring 2019
IE 5301: Operations Research	
The University of Texas at Arlington (Graduate Teaching Assistant)	Fall 2018
IE 5300: Topics in Industrial Engineering: Agent-based Modeling and Simulation (AnyLogic)	
The University of Texas at Arlington (Graduate Teaching Assistant)	Fall 2017
IE 2305: Computer Applications in Industrial Engineering (VBA Programming on Microsoft Excel and Microsoft Access)	
The University of Texas at Arlington (Graduate Teaching Assistant)	Fall 2014, Spring & Fall 2015, Spring & Fall 2016, Fall 2017, and Spring 2018

MEMBERSHIPS

INFORMS Member

PROFESSIONAL SERVICES

Associate Editor of Journal Machine Learning with Applications Mar. 2022 - PRESENT

Editorial Board of INFORMS OR/MS Tomorrow Magazine Sep. 2017 - Mar. 2021

Reviewer for Journals and Conferences

Journals: Information Sciences, Expert Systems With Applications, Applied Sciences, Medical Physics, BioMed Research International, IEEE Access, Electronics, Energies, Renewable Energy, Energy Conversion and Management.

Conferences: 2020 International Conference on Energy Material and Energy Technology (EMET 2020), The 4th International Conference on Computer Science and Application Engineering (CSAE 2020), IISE 2019 Annual Conference & EXPO, 2019 International Conference on Brain Informatics.

HONORS AND AWARDS

2019 Lawrence W. Stephens Endowed Scholarship	University of Texas at Arlington
2019 Dissertation Fellowship	University of Texas at Arlington
2015 Bob and Ann Utley Fellowship	University of Texas at Arlington
2013 Excellent Master Thesis	China University of Petroleum
2012 Graduate National Scholarship	China University of Petroleum
2011 Second Prize in The Sixth National Programming Competition (C/C++)	Beijing, CN
2010 Excellent Bachelor Thesis	China University of Petroleum
2010 First Prize in The Third Campus ACM Programming Competition	China University of Petroleum
2009 Second Prize in The Fifth National Programming Competition (C/C++)	Beijing, CN
2009 First Prize in The Second Campus ACM Programming Competition	China University of Petroleum
2009 First Prize in The Fifth UPC Campus Programming Competition	China University of Petroleum
2009 First-class Scholarship	China University of Petroleum

2008 First Prize in The Fourth UPC Campus Programming Competition	China University of Petroleum
2008 First Prize in The Fifth Software Designing Competition of Province Shandong	Shandong, CN
2008 President of College Students' Science and Technology Association	China University of Petroleum
2008 First-class Scholarship	China University of Petroleum
2007 Undergraduate National Encouragement Scholarship	China University of Petroleum
2006 Undergraduate National Scholarship	China University of Petroleum
2002 Second Prize in Weifang Youth Programming Competition (QBasic Language)	Weifang, CN
1999 Second Prize in Gaomi Youth Programming Competition (Logo Language)	Gaomi, CN