Reza Seyedshohadaie

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Summary

– Research background in decision-making under uncertainty and risk management with application in optimal resource allocation for maintenance and rehabilitation of infrastructures networks and valuation of risky projects.
– Experience in applying predictive and prescriptive analytics techniques such as optimization, statistics and data mining/machine learning.
– Software skills with SAS, Python, Matlab, C++, C#.
– U.S. permanant resident.

Education

Ph.D., Industrial and Systems Engineering
Texas A&M University, College Station, Texas 2011

Dissertation: Modeling Risks in Infrastructure Asset Management.

M.S., Computer Information Systems
Prairie View A&M University, Prairie View, Texas 2005

B.S., Industrial Engineering
Iran University of Science and Technology, Tehran, Iran 2000

Work Experience

Analytics Software Tester   2/2012 – current
SAS Institute

Software quality engineer for SAS Marketing Optimization and High-Performance Marketing Optimization solver engines. Responsible for numerical validation of the optimization solver results in parallel and distributed computing environments. Contributed in improving the accuracy and performance of the marketing optimization algorithms.

Operations Research Software Developer (part-time)   9/2008 – 9/2010
Texas Transportation Institute

Developed EROW; a decision support software tool that gives recommendation for acquiring land parcels early in the highway construction planning process. EROW utilizes an optimization algroithm to determine optimal parcel acquisition strategies under different budget scenarios.

Instructor

ISEN 302, Economic Analysis of Eng. Projects. Industrial Engineering Department, Texas A&M University
COMP-1003, Introduction to Computer Education, CS Department, Prairie View A&M University.

Software Skills

Languages: Visual Studio .Net (C++, C#), SAS (STAT/OR), Python (SciPy, Sci-Kit), SQL, MATLAB
Big data: SAS HPA, Hadoop
Optimization: CPLEX/Consert, AMPL, COIN-OR Solvers
DBMS: MySql, SQLite

Coursework

Machine Learning (Stanford online course)	Non-linear and Dynamic Programming
Theory of Statistics	Applied Stochastic Processes
Theory of Inference	Material Handling Systems
Combinatorial Optimization	Linear Programming
Heuristic Optimization	Integer Programming
Analysis of Algorithms	Infrastructure Engineering
Large-Scale Stochastic Optimization	Game Theory
Production Planning and Inventory Control	Engineering Optimization (convex analysis)

Publications

SR. Seyedshohadaie, I. Damnjanovic, S. Butenko, Risk-based maintenance and rehabilitation decisions for transportation infrastructure networks, Transportation Research Part A: Policy and Practice, Volume 44, Issue 4, May 2010, Pages 236-248.

"Pricing Risk in Public-Private Partnerships". with I. Damnjanovic, Proceedings of TRB annual meeting, January 2012, Washington D.C.

"Implementation of TAMSIM and EROW Right-OF-Way Acquisition Decision-Support Tools".with P. Krugler, C.M. Chang-Albitres, R. Feldman, S. Butenko, D.H. Kang. Texas Transportation Institute, Texas A & M University System, 2011.

"Development of Decision-making Support Tools for Early Right-of-Way Acquisitions" with P. Krugler, C.M. Chang-Albitres, R. Feldman, S. Butenko, D.H. Kang, Texas Transportation Institute. Texas Transportation Institute, Texas A&M University System, 2010.

"Impact of Reconstruction Strategies on System Performance Measures: Maximizing Safety and Mobility While Minimizing Life-Cycle Costs" with I. Damnjanovic, S. Butenko. Wimsat A.No. UTCM 07-04. 2008.

S. Butenko, I. Damnjanovic, R. Seyedshohadaie, "On Betting Strategies for Multiple Sporting Events". International Conference of Economic, Management and Optimization in Sports., Barcelona 2009.

R. Seyedshohadaie, Y. Zhang, "Centralized Supply Chain Coordination: A Service Oriented Architecture". Proceedings of 2004 International Conference on Web Services and Application (ISWS'04 June 21-24 Las Vegas, Nevada).

Presentations

"Pricing Risk in Public-Private Partnerships", TRB annual meeting, January 2012, Washington D.C.

"A Coherent Valuation Approach for Valuing Risky Projects", INFORMS annual meeting, November 2010, Austin, TX.

"Financial Viability of Transportation Infrastructure Public-private Partnerships", INFORMS annual meeting, October 2009, San Diego, CA.

"Risk-based Maintenance and Rehabilitation Decisions for Transportation Infrastructure", TRB annual meeting, January 2009, Washington D.C.

"Risk-based Rehabilitation Decisions for Network of Pavement Facilities", INFORMS Annual Meeting, November 2008, Washington D.C.

"Introduction to AMPL/CPLEX" workshop organized by INFORMS student Chapter at Texas A&M University, Fall 2007 and 2008.