Fan You

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EDUCATION

University of Colorado Boulder, Leeds School of Business Aug. 2016 – Present
Doctoral Student in Operations and Information Management

The Pennsylvania State University, University Park Aug.2013 – Dec. 2015
Master of Science in Operations Research and Industrial Engineering GPA: 3.75/4.0

University of Electronic Science and Technology of China Sept.2009 – July 2013
Bachelor of Science in Industrial Engineering GPA: 3.30/4.0

RESEARCH EXPERIENCES

Graduate Research Assistant, Penn State University Sept.2014 – Dec. 2015

A Study of Unit Commitment Problems – Thesis Research

- Formulated deterministic optimization models for a Power System Unit Commitment problem.
- Solved the problem using Mixed-Integer Programming, Lagrangian Relaxation and Dynamic Programming in *MATLAB.*
- Designed heuristics to get near-optimal solutions based on Linear Regression, PCA and Neural Networks.
- Implemented the heuristics using *MATLAB*, compared their performance with the exact methods.

A Study of Stochastic Inventory Control Problems

- Modeled and solved an inventory problem with infinite time horizon and stochastic demand using Dynamic Programming.
- Formulated approximate models using ADP, Q-Learning and Approximate Linear Programming for the problem.
- Implemented the models and solved them using *MATLAB* and *GAMS*.

Restaurant Queuing System Simulation Oct.2013 – Dec.2013

- Collected the arrival/service data of the queueing model and used *MATLAB* to determine the distribution parameters.
- Used Simio to run a simulation model of the queue to decide the bottleneck of the system.
- Redesigned a model of the queue to improve the performance and verified using Simio.

Warehouse Selection Project Using Bi-Criteria Programming Feb.2014 – May 2014

- Formulated a bi-criteria stochastic model for a supply chain to determine the locations of inventory warehouses.
- Using *GAMS*, solved the fixed relaxation of the bi-criteria model to get the near-optimal policy.
- Using *MATLAB*, enumerated all the eligible alternatives, formulated stochastic optimization models for all the alternatives, calculated the optimal Q-S inventory control policy for all the alternatives, and determine the optimal solution of the system.

Holy Family Academy Work-Study Program Assignment Project Sept.2014 – Dec. 2014

- Developed a multi-criteria MILP model for the Holy Family Academy to assign students to work-study positions.
- Minimized the total "undesirability" to achieve balance and satisfy both the students and corporations.
- Used *Microsoft Excel* to process the data and used *OpenSolver* to formulate the optimization model in Excel.
- Linearized the model which has 207,912 variables to make it tractable to solve.

TEACHING EXPERIENCES

Graduate Teaching Assistant, Penn State University Jan.2015 – May.2015

- Assisted in teaching a senior level undergraduate course. (IE 467 facility layout and material handling).
- Held lab sessions to teach *LINGO/GAMS* programming.
- Held office hours and graded homework and exams.

SKILLS

- Optimization Software: *GAMS, CPLEX, LINDO, LINGO, EXCEL OpenSolver.*
- Programming Languages: *MATLAB, Python, Java*