

## Jian (Ray) Zhang

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### WORK HISTORY

*Assistant professor*, 2017 – present

Haskayne School of Business, University of Calgary

*Postdoc Fellow*, 2013 –2017

COSMO - Stochastic Mine Planning Laboratory

Department of Mining and Materials Engineering, McGill University, Canada

*Associate Consultant*, 2007 – 2008

Oracle Software Systems Co., Ltd, Shenyang, China

### EDUCATION

*Ph.D.* Industrial Engineering, September 2013

Department of Mechanical and Manufacturing Engineering, University of Calgary, Canada

Thesis: “Dynamic Pricing and Scheduling for the Coordination of a One-of-a-kind Production Supply Chain”

*M.S.* Management Science and Engineering, 2007

Northeastern University, China

Specialization: Intelligent Algorithm and Production Planning

*B.B.A.* Management Information System, 2005 (First-Class Honors with Distinction)

Northeastern University, China

### RESEARCH PUBLICATIONS

#### *Working Papers*

- Zhang, Jian and Barrie R. Nault. “The impact of Analytic Technology on the Competition of Platforms”.
- Zhang, Jian and Barrie R. Nault. “Information Sharing and Coordination in a MTO Supply Chain”, under review (2nd round) at Management Science.
- Zhang, Jian and Raymond Patterson. “The Impact of Flexibility-based Discrimination with Value-adding Services”

### **Refereed Journal Papers**

- Zhang, Jian, Barrie R. Nault, and Roussos G. Dimitrakopoulos. "Optimizing a Mineral Value Chain with Market Uncertainty using Benders Decomposition", *European Journal of Operational Research (EJOR)*, 274.1 (2019):227-239.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "Stochastic optimization for a mineral value chain with nonlinear recovery and forward contracts", *Journal of the Operational Research Society* 69.6 (2018): 864-875.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "A dynamic-material-value-based decomposition method for optimizing a mineral value chain with uncertainty", *European Journal of Operational Research* 258.2 (2017): 617-625.
- Zhang, Jian, Barrie R. Nault, and Yiliu Tu. "A dynamic pricing strategy for a 3PL provider with heterogeneous customers", *International Journal of Production Economics* 169 (2015): 31-43.
- Zhang, Jian, Wensheng Yang, and Yiliu Tu. "Scheduling with compressible and stochastic release dates", *Computers & Operations Research* 40.7 (2013): 1758-1765.
- Zhang, Jian, Barrie R. Nault, Wensheng Yang, and Yiliu Tu. "Dynamic price quotation in a responsive supply chain for one-of-a-kind production", *International Journal of Production Economics* 139.1 (2012): 275-287.
- Zhang, Jian, Xiao Liu, and Y. L. Tu. "A capacitated production planning problem for closed-loop supply chain with remanufacturing." *The International Journal of Advanced Manufacturing Technology* 54.5-8 (2011): 757-766.
- Liu, Xiao, Yiliu Tu, and Jian Zhang. "A genetic algorithm heuristic approach to general outsourcing capacitated production planning problems", *International Journal of Production Research* 46.18 (2008): 5059-5074

### **Refereed Conference Papers & Presentations**

- Zhang, Jian, and Barrie R. Nault. "The Competition Between Edge Providers and the Impact of Analytics Technology", CIST 2019, Seattle, WA, USA, 2019.
- Zhang, Jian, and Barrie R. Nault. "Upstream Information Sharing in a Make-to-Order Supply Chain", CIST 2017, Houston, TX, USA, 2017.
- Zhang, Jian, and R. Dimitrakopoulos. "A Dynamic-ore-price-based Method for Optimizing a Mineral Value Chain with Uncertainty", in proceedings of the *37th International Symposium on the Application of Computers and Operations Research in the Mineral Industry (APCOM 2015)*, Fairbanks, AK, the United States, 2015.
- Zhang, Jian, and R. Dimitrakopoulos. "Optimizing a Mineral Supply Chain with Uncertainty and Non-Linear Operations", in proceedings of *Orebody Modeling and Strategic Mine Planning (SMP) Conference*, Perth, Western Australia, 2014.
- Zhang, Jian, Barrie R. Nault, and Yiliu Tu. "Dynamic and adaptive price quotation in a Make-To-Order company", *Technology Management Conference (ITMC), 2011 IEEE International*. IEEE, 2011.
- Zhang, Jian, and Xiao Liu. "A capacitated production planning problem for closed-loop supply chain." *International Conference in Swarm Intelligence*. Springer, Berlin, Heidelberg, 2010.

- Liu, Xiao, and Jian Zhang. "A capacitated production planning with outsourcing: a general model and its algorithm." *International Conference on Intelligent Computing*. Springer, Berlin, Heidelberg, 2006.

#### **Non-Refereed Conference Abstracts & Presentations**

- Zhang, Jian, and Roussos G. Dimitrakopoulos. "A Dynamic-Ore-Price Based Approach for Mineral Value Chain Optimization with Uncertainty", presented at CORS/INFORMS International Meeting, Montréal, QC, Canada, 2015.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "Mine Production Planning in Consideration of Commodity Market Risk", presented at *SME Annual Conference & Expo*, Denver, CO, the United States, 2015.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "Mineral Supply Chain Planning with Dynamic Recovery Rate and Market Uncertainty", presented at *INFORMS Annual Conference*, Montreal, QC, 2014.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "Optimizing a Mineral Supply Chain with Uncertainties Integrating Long-term Contract", presented at *IIE Annual Conference & Expo*, Montreal, QC, 2014.
- Zhang, Jian, and Roussos G. Dimitrakopoulos. "Optimize a Mineral Supply Chain with Uncertainties in Ore Supply and Commodity Market", presented at *Optimization Days*, Montreal, QC, 2014.

#### **Research Grants**

- SSHRC Insight Development Grant (IDG) The Impact of Decentralized Autonomous Organization on Data Economy (CAD 45,422), 2020 - 2022
- SSHRC IDG Enhancement Grant (CAD 3,500), 2019-2021
- Dean's Publication Award (CAD 5,000), Haskayne School of Business, University of Calgary, 2019-2022.
- University Research Grant Committee (URGC) Explore Faculty Seed Grant: The Impact of Blockchain on Multi-sided platforms (CAD 14,500), Social Sciences and Humanities Research Council (SSHRC), 2019-2020.
- Dean's Research Excellence Grant (CAD 40,000), Haskayne School of Business, University of Calgary, 2017-2021.

#### **Teaching**

Haskayne School of Business, University of Calgary

- F2017, F2018 - BTMA 317 - Introduction to Business Technology Management
- F2017, F2018, F2019, F2020 - BTMA 331(Undergraduate) & 799 & 631 (MBA) - Data Management and Business Analytics

Department of Mining Engineering, McGill University

- Optimization Methods in Mining Engineering, Winter 2015
- Discrete Optimization, Winter 2015
- Optimization Methods in Mining Engineering, Fall 2014

Online short lectures

- Benders decomposition: <https://youtu.be/vQzpydNOWDY>
- Bayesian inference: <https://youtu.be/I4dkEALQv34>
- ANOVA and T-test: <https://youtu.be/dysmMWIY9U4>

### Service

- The MBA Committee of Haskayne School of Business, University of Calgary
- The Master of Management (MMgmt) Committee of Haskayne School of Business, University of Calgary
- Business Intelligence and Analytics Advisory Committee of Continuing Education, University of Calgary