

Joline Uichanco

CONTACT INFORMATION University of Michigan
Ross School of Business
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RESEARCH INTERESTS Supply Chain Management, Omni-channel pricing and inventory management, Humanitarian Operations, Robust Optimization

EDUCATION **Massachusetts Institute of Technology (MIT)**
Ph.D. in Operations Research (Operations Management track), September 2013
Thesis title: Data-driven optimization and analytics for operations management applications
Thesis advisors: Retsef Levi and Georgia Perakis

Massachusetts Institute of Technology (MIT)
S.M. in Computation for Design and Optimization, September 2007
Thesis title: Data-driven revenue management
Thesis advisors: Retsef Levi and Georgia Perakis

National University of Singapore (NUS)
S.M. in Computational Engineering
Thesis title: Optimal bounds for piecewise linear utility models in portfolio optimization
Thesis advisors: Karthik Natarajan and Melvyn Sim

National University of Singapore (NUS)
B.Sc. (Honors) in Computational Finance, May 2006
Honors year project: Numerical algorithms for piecewise-linear utility models for portfolio optimization
First Class Honours, Lijen Industrial Development Medal for the Best Honors year project in Computational Finance

HONORS AND AWARDS

- Best Paper Award (First Place) from the INFORMS Service Science Section for the paper “Stochastic optimization for resource allocation with random emergencies”, Oct 2012
- Singapore-MIT Alliance Graduate Fellowship, Jun 2006
- Lijen Industrial Development Medal, NUS, May 2006 (Best Honours Year Project in Computational Finance)
- NUS Faculty of Science Dean’s List (Semester I (2003/2004))
- NUS Faculty of Science Dean’s List (Semester II (2003/2004))
- NUS Faculty of Science Dean’s List (Semester I (2004/2005))
- NUS Students’ Union Certificate of Merit, Sept 2004
- Singapore Cooperation Program Scholarship, Singapore Ministry of Foreign Affairs, 2001 to 2006

EMPLOYMENT **University of Michigan, Ross School of Business**
Ann Arbor, Michigan **Sept 2014**
Assistant Professor, Technology and Operations Department **to present**

- Research on supply chain management, humanitarian operations and crisis management, revenue management

IBM T.J. Watson Research Center
Yorktown Heights, New York

Postdoctoral Researcher, Supply Chain Analytics **Aug 2013 – Aug 2014**
• Research on omni-channel price optimization, supply chain management for retail companies

IBM Zürich Research Lab

Rüschlikon, Switzerland

Intern, Business Optimization Group **June 2010 – Aug 2010**
• Research on stochastic economic lot scheduling. Deciding on a production sequence of several items that use the same machine with fixed capacity. Sequence dependent setup costs are incurred when switching from producing one item to another. Developed a heuristic for determining a production schedule.

Singapore Exchange Ltd.

Singapore

Intern, Risk Management Department **Dec 2006**
• Duties included developing a computer program that downloads Bloomberg data on the company's financial instruments and compute the company's risk position

Citibank

Singapore

Intern, Global Transactions Department **May 2004 to Aug 2004**
• Duties included creating a VBA program that aids data-entry and calculation that was previously done manually

PUBLICATIONS

PUBLISHED PAPERS

Business analytics for flexible resource allocation under random emergencies (2014), with S. Balwani, G. Perakis, and industry collaborators M. Angalakudati, J. Calzada, B. Chatterjee, and N. Raad, *Management Science*, Volume: 60, Issue: 6, Pages: 1552–1573

- 2012 Best Paper Award (First Place) from the INFORMS Service Science Section

Tractable robust expected utility and risk models for portfolio optimization (2010), with K. Natarajan (SUTD) and M. Sim (NUS), *Mathematical Finance*, Volume: 20, Issue: 4, Pages: 695–731

SUBMITTED PAPERS

A data-driven heuristic for inventory models with incomplete demand information using robust partitioning (2014), with K. Natarajan and M. Sim, submitted to *Management Science*

The data-driven newsvendor problem: New bounds and insights (2012), with R. Levi and G. Perakis, submitted to *Operations Research* (fourth round of revisions)

Regret optimization for stochastic inventory models with spread information (2012), with R. Levi (MIT) and G. Perakis (MIT), submitted to *Operations Research* (invited for revision)

WORKING PAPERS

A tractable model for capacity constrained response operations for a large-scale disaster: a case study of Typhoon Haiyan in the Philippines (2014), In preparation

Lifecycle price and inventory optimization in an omni-channel retail environment (2014), with M. Ettl, P. Harsha, S. Subramanian, In preparation

Omni-channel price matching: To match or not to match (2014), with M. Ettl, P. Harsha, S. Subramanian, In preparation

PATENTS

Method for price matching in omni-channel retailing (2014), with M. Ettl, P. Harsha, S. Subramanian, Patent Pending

INVITED TALKS

Analytics for humanitarian logistics

- IBM Analytics Lecture Series, University of Asia and the Pacific, Philippines, December 10, 2014
- Ateneo Institute of Sustainability, Ateneo de Manila University, Philippines, December 12, 2014

Efficient scheduling of service operations under uncertainty: The case of a US gas utility company

- IBM Research, March 2013
- Boston University, February 2013
- New York University, February 2013
- University of Maryland, February 2013
- Cornell ORIE, February 2014
- University of Michigan, January 2013
- Stanford Graduate School of Business (GSB), January 2013
- Stanford Management Science and Engineering (MS&E), January 2013
- Yale University, January 2013
- Harvard University, January 2013
- Dartmouth University, December 2012
- MIT Operations Management Seminar Series, November 2012

Regret optimization for stochastic inventory models with spread information

- MIT Operations Management Seminar Series, 2011

The data-driven newsvendor problem: New bounds and insights

- NUS Decision Sciences, National University of Singapore, 2011
- MIT Operations Management Seminar Series, 2009

Tractable robust expected utility and risk models for portfolio optimization

- NUS Mathematics Department, National Univ of Singapore, 2008

TEACHING

Operations Management (15.761) for MBAs, Spring 2011

MIT Sloan School of Management

Teaching Assistant

Instructor: Karen Zhang

Operations Management (15.761) for MIT Leaders for Global Operations,

Summer 2011

MIT Sloan School of Management

Teaching Assistant

Instructor: Bradley Morrison

Data, Models and Decisions (15.060) for MBAs, Fall 2010
MIT Sloan School of Management
Teaching Assistant
Instructor: David Gamarnik

PROFESSIONAL
ACTIVITIES

Editorial: Area Editor for Supply Chain Management for the journal 4OR

Reviewer: Operations Research, Production and Operations Management, European Journal of Operations Research, Wiley Encyclopedia of Operations Research and Management Science, SIAM Workshop on Analytic Algorithms and Combinatorics (ANALCO 10), MSOM 2010 Conference

Leadership: Secretary of INFORMS - MIT Student Chapter (2009-2010), Publicity chair of Sidney-Pacific Graduate Student Housing (2009-2010), Programs Assistant Director of the NUS International Fiesta 2006, Resident Assistant at Prince Georges Park Residences (2004- 2005), Event coordinator for the International Relations Committee of NUS (2003-2004)

TECHNICAL
SKILLS

Scientific computing: MATLAB, R

Programming languages: VBA, C, Java, Python

Optimization solvers: GAMS, IBM ILOG CPLEX, Gurobi