# Hailong Sun

RESEARCH Interests Stochastic and Robust Optimization; Data-driven Decision Making; Online Learning and Online Convex Optimization; Pricing and Revenue Management; Discrete Choice Modeling; Supply Chain Operations

**EDUCATION** 

National University of Singapore, Singapore Aug. 2017 – May. 2022 (expected)

PhD Candidate in Operations ResearchThesis: "Bundle Design and Pricing: Theory and Applications"

• Advisors: Chung Piaw Teo and Xiaobo Li

South China University of Technology, Guangzhou, China Sep. 2014 – Jul. 2017 M.Eng. in Management Science and Engineering

Ocean University of China, Qingdao, China B.Eng. in Environmental Engineering Sep. 2007 – Jun. 2011

Working Papers

"Convex Optimization for Bundle Size Pricing Problem", with Xiaobo Li and Chung Piaw Teo. Accepted by Management Science, 2021 [link]

• Accepted to the 21st ACM Conference on Economics and Computation (EC), 2020

"Product Bundle Recommendation and Pricing: How to Make It Work?", with Xiaobo Li and Chung Piaw Teo. Under review at *Management Science*, 2021 [link]

"Robust Capacity Planning and Battery Charging Policy for Electric Vehicle Battery Swap Station", with Bo Feng and Zuo-Jun Max Shen. Under revision, 2021 [link]

Work-In-Progress "Airline Fare Family Pricing under Representative Agent Model", with Changchun Liu and Chung Piaw Teo, 2021

"A Hybrid Algorithm for Network Revenue Management with Cancellations and No-shows", with Guodong Lyu and Tingrui Shi, 2021

"Data-Driven SKU Rationalization for Food Bank Singapore", with Victor Fernandez, 2021

WORK Experience Singapore Airlines, Singapore Revenue Management Intern Summer 2018

• Developed models and algorithms for fare family pricing.

Microsoft (China), Guangzhou Online Advertising Intern Jan. 2017 – May. 2017

Worked on a consulting project to build data management platform for an advertisement company.

<b>HAIWAN</b>	Engineering,	Qingdao
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Aug. 2011 – Jul. 2014

Design Engineer

• Worked on design projects to make layout and logistics planning for chemical and power plant construction.

Teaching
EXPERIENCE

#### Tutor

• IE4211 Modeling and Analytics (undergraduate)

Spring 2020

#### Teaching Assistant

• BDC6248/IE6881 Pricing and Revenue Management (PhD)	Fall 2019
• BDC5101 Deterministic Operations Research Models (MSBA)	Spring 2019
• DAO1704 Decision Analytics using Spreadsheets (undergraduate)	Fall 2018

# CONFERENCE PRESENTATION

# Convex Optimization for Bundle Size Pricing Problem

• The 21st ACM Conference on Economics and Computation (EC), virtual	Jul. 2020
• INFORMS Annual Meeting, Seattle	Oct. 2019
• Mostly OM Workshop, Shenzhen	Jun. 2019
CSAMSE, virtual	Jul. 2021

# Bundle Recommendation and Pricing: A Simple Mechanism and Its Optimization

• MSOM Conference	June 2021
• INFORMS Revenue Management and Pricing Section Conference	June 2021
• CSAMSE, virtual	Jul. 2021

Honors and Awards NUS Research Scholarship SCUT Academic Scholarship

 $\begin{array}{c} 2017 - Present \\ 2014 - 2017 \end{array}$ 

COMPUTER SKILLS Python, R, C, MATLAB, Gurobi, Mosek, CVX, LATEX, AutoCAD

REFERENCES

# Chung Piaw Teo (Advisor)

Professor NUS Business School National University of Singapore Email: bizteocp@nus.edu.sg Xiaobo Li (Advisor)

Assistant Professor Department of ISEM

National University of Singapore

Email: iselix@nus.edu.sg