

# Hailong Sun

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## CONTACT INFORMATION

Institute of Operations Research and Analytics  
National University of Singapore  
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———— Updated on June 28, 2021 ————

## 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 Research

- Thesis: “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 Sep. 2007 – Jun. 2011  
B.Eng. in Environmental Engineering

## 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. Submitted to *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 using Cross Moment Model”, with Xiaobo Li and Chung Piaw Teo, 2021

“A Hybrid Algorithm for Network Revenue Management with Cancellations and No-shows”, with Guodong Lyu, Tingrui Shi and Chung Piaw Teo, 2021

“Data-Driven Agile Warehouse Operations for Food Bank Singapore”, with Xiaobo Li and Chung Piaw Teo, 2021

## WORK EXPERIENCE

**Singapore Airlines**, Singapore Summer 2018  
Revenue Management Intern

- Developed models and algorithms for fare family pricing.

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

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

**HAIWAN Engineering**, Qingdao 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

Bundle Recommendation and Pricing: A Simple Mechanism and Its Optimization

- MSOM Conference June 2021
- INFORMS Revenue Management and Pricing Section Conference June 2021

HONORS AND  
AWARDS

NUS Research Scholarship

2017 – Present

SCUT Academic Scholarship

2014 – 2017

COMPUTER SKILLS

Python, R, C, MATLAB, Gurobi, Mosek, CVX, L<sup>A</sup>T<sub>E</sub>X, AutoCAD

REFERENCES

**Chung Piaw Teo (Advisor)**

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NUS Business School

National University of Singapore

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**Xiaobo Li (Advisor)**

Assistant Professor

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National University of Singapore

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