Teng HUANG

Assistant Professor School of Business Sun Yat-sen University

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Professional Position

Sun Yat-sen University (SYSU), Guangzhou, China

January 2022 - present: Assistant Professor, School of Business

November 2020 - January 2022: Assistant Professor, Lingnan College

EDUCATION

University of Connecticut (UConn), Storrs, CT

Ph.D., major area: Analytics and Optimization, August 2020

- Dissertation Title: On Embedding Advanced Predictive Models into Optimization Models
- Dissertation Committee: David Bergman (chair), James Marsden, Manuel Nunez, and Arvind U. Raghunathan

Sun Yat-sen University (SYSU), Guangzhou, China

Master, Information Science, July 2013

Sun Yat-sen University (SYSU), Guangzhou, China

Bachelor, Information Management and Information Systems, July 2011

• Double Major in Archaeology

REFEREED
JOURNAL
PUBLICATIONS

- Huang T., Su Q., Yu C.L., Zhang Z.*, Liu F. (2024). Strategic Team Design: A Data-Driven Analytical Perspective and Its Implications. Decision Support Systems, 181(2024):114227. https://doi.org/10.1016/j.dss.2024.114227 [link]
- 2. Feng H, Jia Y, Zhou S, Chen H, **Huang T***. (2023). A Dataset of Service Time and Related Patient Characteristics from an Outpatient Clinic. *Data*. 8(3):47. https://doi.org/10.3390/data8030047 [link]
- 3. Bergman, D., Huang, T.*, Brooks, P., Lodi, A., and Raghunathan, A. U. (2022). JANOS: Integrated Predictive and Prescriptive Modeling Framework. *INFORMS Journal on Computing*, 34(2):807-816. https://doi.org/10.1287/ijoc.2020.1023 [link]
- 4. Serra, T.*, Huang, T.*, Raghunathan, A. U., and Bergman, D. (2022). Template-based Minor Embedding in Chimera Graphs for Adiabatic Quantum Optimization. *INFORMS Journal on Computing*, 34(1):427-439. https://doi.org/10.1287/ijoc.2021.1065 [link]

5. **Huang, T.**, Bergman, D.*, & Gopal, R. (2019). Predictive and Prescriptive Analytics for Location Selection of Add--on Retail Products. *Production and Operations Management*, 28: 1858-1877. DOI:10.1111/poms.13018 [link]

RESEARCH GRANTS

The Explanability of the Deep Recurrent Neural Network on Inventory Management Processes, supported by The China Postdoctoral Science Foundation (70th)

PI 2021.7.1 - 2023.6.30

Data-Driven Multi-objective Optimization for Aircraft Line Maintenance Scheduling, supported by The National Natural Science Foundation of China (NSFC)

PI 2022.1.1 - 2024.12.31

The Identification of Bottleneck Line Maintenance Events and Line Maintenance Scheduling, supported by Cyber Logistic Research Centre, The Chinese University of Hong Kong

PI 2021.8.15 - 2021.12.15

Research on China's Science and Technology Innovation Strategy in Adapting to Climate Change, supported by Chinese Ministry of Education (PI: Jieyu Li)

Researcher 2021.8 – 2022.12

Research on Project Scheduling of Aircraft Maintenance Base, supported by Cyber Logistic Research Centre, The Chinese University of Hong Kong (PI: Gang Chen)

Researcher 2021.8 - 2021.12

Management Science Group, Lingman College, supported by The Fundamental Research Funds for the Central Universities, Sun Yat-sen University (PI: Jun Lu)

Researcher 2021

Public Opinion on COVID-19 related Policies and Their Economic Impact, supported by COVID-19's Impact and Policy Studies - Central University of Finance and Economics (PI: Xi Wang)

Researcher 2020 - 2021

Impact Factors of Users Emotion Experiences in Social Commerce, supported by The National Social Science Fund of China (PI: Tinghua Gu)

Researcher 2018 - 2021

Professional Service

Associate Editor

• Decision Support Systems

April 15, 2021 -

Specialist

• Blockchain group, Shenzhen-Hongkong-Macau FinTech Professional Program, Shenzhen Fintech Assiciation March 1, 2021 –

Session Organizer

• POMS 34th Annual Meeting (POMS 2024), Minneapolis MN, U.S.A. April 25-29, 2024

Session Chair

- POMS 34th Annual Meeting (POMS 2024), Minneapolis MN, U.S.A. April 25-29, 2024
- POMS 30th Annual Meeting (POMS 2019) (Co-chair: David Bergman), Washington D.C., U.S.A. May 2-6, 2019

Reviewer Journals/Conferences Reviewed for (#articles reviewed)

- Service Science 2024 (1)
- ACM Transactions on Quantum Computing 2023 (1)
- 2023 Conference on Information Systems and Technology (CIST 2023) (1)
- INFORMS Journal on Data Science (IJDS) 2023 (1) 2024 (1)
- 2023 62nd IEEE Conference on Decision and Control (CDC) (1)
- Decision Support Systems (DSS) 2019 (8) 2020 (7) 2021 (9) 2022 (7) 2023 (9)
- Electronic Commerce Research (ECR) 2021 (1)
- 2021 International Conference on Information Systems (ICIS 2021) (1)
- Engineering and Applied Science Research (EASR) 2021 (1)
- INFOR: Information Systems and Operational Research (INFOR) 2021 (1)
- Expert Systems With Applications (ESWA) 2020 (1)
- 2020 International Conference on Information Systems (ICIS 2020) (2)
- The 24th Pacific Asia Conference on Information Systems (PACIS 2020) (2)
- International Journal of Forecasting (INTFOR) 2020 (1)
- The 14th Learning and Intelligent Optimization Conference (LION14) (1)
- The 15th Winter Conference on Business Analytics (WCBA 2020) (1)
- Journal of Optimization Theory and Applications (JOTA) 2019 (1)
- The 29th Workshop on Information Technologies and Systems (WITS 2019)
 (1)
- 2019 Conference on Information Systems and Technology (CIST 2019) (1)
- 2019 International Conference on Information Systems (ICIS 2019) (3)
- The 2019 INFORMS Workshop on Data Science (DS2019) (1)
- The 16th International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR 2019) (1)
- The 15th International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR 2018) (1)
- The 31st AAAI Conference on Artificial Intelligence (AAAI-17) (1)

Website Chair

• The 25th International Conference on Principles and Practice of Constraint Programming (CP 2019) (Co-chair: Mohsen Emadikhiav)

ARTICLES UNDER REVIEW

1. **Huang T.**, Chen F., Fu K.* (2023). Data-Driven optimization of online coupon targeting. 1st round revision at *Journla of Systems Engineering* (in Chinese)

- 2. Feng H, Jia Y, **Huang T***, Zhou S, Chen H. (2023). A data-driven approach to outpatient appointment scheduling with heterogeneous service times. 1st round revision at *Computers in Biology and Medicine*
- 3. Hu J.K., Xia L., **Huang T.**, Wu H.R.*, (2023). A multi-agent deep reinforcement learning approach for multi-echelon inventory optimization, submitted to *European Journal of Operational Research*
- 4. **Huang T.**, Zhong C.H., Chen G.* (2024). Data-Driven Decision Optimization on the Prevention of Outbound Flight Delays. submitted to *Expert Systems with Applications*

SELECTED WORKING PAPERS

- 1. Learning Decisions Offline from Censored Observations with ε -insensitive Operational Costs
- 2. Online Inventory Control with Censored Demand: A Neural Network-Based Approach
- 3. Bergman, D., Huang, T., and Mathieu, J. (2019). Data-Driven Optimization for Team Formation
- 4. Ding T.R., Zhang Y.K., **Huang T.***, Hu X.P. (2023). Data-driven Storage Assignment Considering Workload Balancing for Robotic Mobile Fulfillment Systems
- 5. Fang K.X., Huang T.*, Feng H.L., Chen Q.P. (2023). A bibliometric analysis of telemedicine in economics and management, targeting the Journal of Medical Internet Research
 - 中山大学管理学院"第四届本科生论文大赛"三等奖

REFEREED CONFERENCE PUBLICATIONS

- 1. Xu, Y,. **Huang, T.***, Zuo, Z., Wang, X. Social Media Sentiment and COVID-19 Transmission: Results from a Time-varying SIR Model, Pacific Asia Conference on Information Systems. July 12 14, 2021
- 2. Tan T., **Huang, T.**, Wang, X., Zuo, Z. A Preliminary Investigation of COVID-19 Transmission in the United States by Incorporating Social Media Sentiments The 2020 ASIS&T Virtual Annual Meeting. October 25 29, 2020

Teaching

Instructor – School of Business, Sun Yat-sen University

BS5226 – Academic standard and thesis writing Spring 2024
BS261 – Big Data and Business Analytics (with Dr Xiaopo Zhuo, Dr Shan
Wang and Dr Yanli Tang) Spring 2023
BF134 – The Programming and Practice (Python) Spring 2022

Instructor – Lingnan College, Sun Yat-sen University

LN485 – Research Methods in Management Science (with eight other faculty members) Fall 2021, Fall 2022, Spring 2023

LN3120 – Introduction to Artificial Intelligence Spring 2021, Spring 2022

LN3121 – Introduction to FinTech (with Dr Yanchu Liu and Dr Junqing Kang) Spring 2021, Spring 2022, Spring 2023

Instructor – Department of Operations and Information Management, University of Connecticut

OPIM 3103 – Business Information Systems

Spring 2020

OPIM 3103 – Business Information Systems

Summer 2019

• Overall rating of teaching (median): 5.0/5.0

Assistant – Department of Operations and Information Teaching Management, University of Connecticut

OPIM 3104 – Operations Management (Prof. Miao Bai) Fall 2019 OPIM 3104 – Operations Management (Prof. Moustapha Diaby) Fall 2018

OPIM 3103 – Business Information Systems (Prof. Alex Tung, Prof. Xue Fall 2015 – Spring 2018 Bai, Prof. Shu He)

PROFICIENCIES

Programming Languages: Python, C++, C#, Java

Optimization: Gurobi, or-tools

Statistical Programming: R, STATA, MATLAB Web Programming: HTML5, CSS, Javascript, jQuery Database: MySQL, Microsoft SQL Server, Oracle

Shell Scripting

INVITED TALKS Data-driven Decision-making Methods

• Guangdong United Electronic Fee-Collecting Co., Ltd. M202, School of Business, Sun Yat-sen University, 9:30 - 12:00, December 15, 2023

JANOS: Integrated Predictive and Prescriptive Modeling Framework

- School of Business, Lanzhou University Online, 19:30 - 21:00, November 28, 2023
- School of Economics and Management, Dalian University of Technology B205, 9:00 - 10:00am, September 9, 2023

Optimization with Objective Functions Learned Through Machine Learning

- Department of Management, Lingnan (University) College, Sun Yat-sen University Online, 9:00 - 10:30am, April 30, 2020
- Department of Management Sciences, Faculty of Engineering, University of Waterloo CPH 4335, 2:30 - 3:30pm, February 26, 2020

Conference

A data-driven approach to outpatient appointment scheduling with Presentations heterogeneous service time

2023 POMS International Conference in China. Hangzhou, China. July 1-2, 2023 (presented by co-author Yiwu Jia), under the title "Appointment Scheduling With Patient Re-entrants: A Data-driven Approach"

Learning Decisions Offline from Censored Observations with ε -insensitive Operational Costs

- POMS Annual Conference 2024, Minneapolis, MN, U.S.A. April 25-29, 2024
- INFORMS Annual Meeting 2023. Phoenix, AZ. October 15-18, 2023
- The 18th INFORMS Workshop on Data Mining and Decision Analytics, Phoenix, AZ. October 14, 2023
- The 2023 INFORMS Workshop on Data Science. Phoenix, AZ. October 14, 2023 (presented by co-author Minxia Chen)
- FinTech · AI and Data Analytics, FAIDA Workshop. Guiyang, Guizhou China. August 14-18, 2023
- 2023 Annual International Conference for Chinese Scholars in Industrial Engineering. Guangzhou, China. August 10-12, 2023 (presented by coauthor Minxia Chen)
 - Winner of Outstanding paper award
- The 15th International Annual Conference of the Chinese Scholars Association for Management Science and Engineering. Shenzhen, China. July 29-30, 2023 (presented by co-author Minxia Chen)
- 2023 POMS International Conference in China. Hangzhou, China. July 1-2, 2023 (presented by co-author Minxia Chen)
- (withdraw due to Visa issue) 2023 INFORMS MSOM Conference. Montreal, Canada. June 24-26, 2023

Online Inventory Control with Censored Demand: A Neural Network-Based Approach

• 2023 POMS International Conference in China. Hangzhou, China. July 1-2, 2023 (presented by co-author Nachuan Shi)

PACIS 2023 Junior Faculty Consortium Nanchang, China. July 9, 2023

JANOS: Integrated Predictive and Prescriptive Modeling Framework

- SSOM (online), Guangzhou, China, December 18 19, 2021
- POMS Annual Conference 2020 (canceled). Minneapolis, MN, U.S.A. April 23 27, 2020
- INFORMS Optimization Society Conference 2020 (canceled). Greenville, SC. March 15 17, 2020 (presented by co-author Dr. David Bergman)
- Winter Conference on Business Analytics (WCBA) 2020 (canceled). Snowbird, UT. March 12 14, 2020 (accepted for a poster presentation) [canceled]
- NYC Operations Day 2020 (accepted for a poster presentation) [canceled]
- The 29th Workshop on Information Technologies and Systems (WITS 2019). Munich, Germany. December 18-20, 2019. (Demo/Prototype)
- INFORMS Annual Meeting 2019. Seattle, WA. October 20-23, 2019

Social Media Sentiment and COVID-19 Transmission: Results from a Time-varying SIR Model

• Pacific Asia Conference on Information Systems. July 12 - 14, 2021 - Online (presented by co-author Yue Xu)

A Preliminary Investigation of COVID-19 Transmission in the United States by Incorporating Social Media Sentiments

• The 2020 ASIS&T Virtual Annual Meeting. October 25 - 29, 2020 (poster presented by co-author Tianyi Tan)

POMS Doctoral Consortium (canceled) Minneapolis, MN. April 25, 2020

Template-based Minor Embedding in Chimera Graphs for Adiabatic Quantum Optimization

- Mixed Integer Programming Workshop 2020. Rutgers University (withdraw from the online workshop). May 18 21, 2020 (accepted for a poster presentation) [withdraw from the online meeting]
- INFORMS Optimization Society Conference 2020 (canceled). Greenville, SC. March 15 17, 2020 (presented by co-author Dr. Thiago Serra)

Discrete Optimization with Objective Functions Learned Through Predictive Modeling

• The 29th Workshop on Information Technologies and Systems (WITS 2019). Munich, Germany. December 18-20, 2019. (Dissertation Proposal)

Data-Driven Optimization for Team Formation

- INFORMS Optimization Society Conference 2020 (canceled). Greenville, SC. March 15 17, 2020 (presented by co-author Dr. David Bergman)
- Winter Conference on Business Analytics (WCBA) 2020. Snowbird, UT. March 12 14, 2020 (accepted for a poster presentation) [canceled]
- INFORMS Annual Meeting 2019. Seattle, WA. October 20-23, 2019
- The 3rd INFORMS Workshop on Data Science (DS 2019). Seattle, WA. October 19, 2019 (accepted for a poster presentation)
- INFORMS Computing Society Conference (ICS) 2019. Knoxville, Tennessee. January 2019 (presented under title "Predicting and Optimizing Team Formation")

POMS Doctoral Consortium

Washington D.C. May 4, 2019

Predictive and Prescriptive Analytics for Location Selection of Addon Retail Products

- INFORMS Annual Meeting 2019. Seattle, WA. October 20-23, 2019
- The 14th INFORMS Workshop on Data Mining and Decision Analytics (DMDA 2019). Seattle, WA. October 19, 2019
- POMS Annual Meeting 2019. Washington D.C. May 2019
- Winter Conference on Business Analytics (WCBA) 2019. Snowbird, UT. March 2019 (accepted in a regular session)
- INFORMS Annual Meeting 2018. Phoenix, AZ. November 2018

AWARDS AND SCHOLARSHIPS

School of Business — Sun Yat-sen University

• 中山大学管理学院第四届本科生论文大赛优秀指导教师 December 2023

Student Awards — University of Connecticut

- Teaching Assistant Award (Department of Operations and Information Management)

 Spring 2020
- The Graduate Student Intern of the Year 2019 (third place) Spring 2020
- Doctoral Dissertation Fellowship (The Graduate School) Spring 2020
- Peter Shanley Endowment (School of Business) Fall 2018 Spring 2019

Student Awards — Sun Yat-sen University

• Scholarship for Graduate students

Fall 2012 – Spring 2013

• Scholarship of 3M for students in Library Science

December 2012

• The 3rd prize, Distinguished Student Scholarship

Fall 2008 – Spring 2009

• The 3rd prize, Distinguished Student Scholarship

Fall 2007 – Spring 2008

National Olympiad in Informatics (NOI), China

• The 3rd prize (national) & the 2nd prize (regional)

2005 & 2006

Work Experience

Mitsubishi Electric Research Laboratories (MERL), Cambridge, MA

Intern

January 2019 - April 2019

IT Department, Giordano International Limited, Guangzhou, China

Data Analyst & Programmer

May 2013 - November 2014

Yunnex.com, Guangzhou, China

Assistant of Media Manager

September 2014 - November 2014

Valleytalk.org, CA, USA

Blogger

June 2014 - August 2014

Siemens Transformer (Guangzhou) Co., Ltd. (STGZ), Guangzhou, China

Intern

November 2012 - January 2013

MENTORSHIP

Undergraduate Students

- Chuling Yu, Management Science, Lingnan College, Sun Yat-sen University, 2023 (University-level Outstanding Undergraduate Thesis)
- Fan Chen, Management Science, Lingnan College, Sun Yat-sen University, 2022
- Changhui Zhong, Management Science, Lingnan College, Sun Yat-sen University, 2022 (College-level Outstanding Undergraduate Thesis)

Master Student

 Qingping Chen, Library & Information Science, Sun Yat-sen University, 2020

SOCIAL SERVICE Crew Member

Route Marking: Advanced (Team B);

2019 Out of the Darkness – Overnight Walk by the American Foundation of Suicide Prevention, Boston, MA, United States June 22, 2019

Volunteer

2020 Out of the Darkness – Overnight Walk by the American Foundation of Suicide Prevention, New York City, United States [donate] June 20, 2020

UConn New Graduate Students Orientation - Tour Guide August 20, 2019

INFORMS Pro Bono Analytics (PBA)

May 2019 – present

U
Conn New International Graduate Students Orientation – Tour Guide August
 $2016\,$

UConn Clean Sweep sponsored by Residential Life (Shift assignment at Northwood Apartments) November 15, 2015

Tutor elementary and middle school students whose parents are migrants in Guangzhou, China

April 2013 – January 2014

Take and print family photos of residents in a rural village in Yunnan, China January 2014

Reference Services in Guangzhou City Library, Guangzhou, China January 2013 – February 2013

Assistant

Administration Office of School of Information Management, Sun Yat-sen University, Guangzhou, China February 2011 & February 2012