YANHAN (SAVANNAH) TANG

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Last update: March 1, 2025

EMPLOYMENT

Southern Methodist University (Cox School of Business)	Dallas, USA
Assistant Professor of Information Technology and Operations Management	*August 2024 - present*

EDUCATION

Carnegie Mellon University (Tepper School of Business)	Pittsburgh, USA
PhD in Operations Management, minor in Machine Learning & Statistics	*August 2018 - May 2024*
MS in Operations Management, minor in Optimization	*August 2018 - May 2021*
Carnegie Mellon University (School of Computer Science)	Pittsburgh, USA
MS in Machine Learning	*January 2022 - May 2023*
Tsinghua University (School of Economics and Management)	Beijing, China
BS in Information Management and Information Systems	*September 2014 - July 2018*

RESEARCH INTERESTS

Application: Child welfare services, organ allocation, personalization, public services

Methodology: Machine learning, optimization, reinforcement learning, deep learning

PUBLICATION

1. Multi-Armed Bandits with Endogenous Learning Curves: An Application to Split Liver Transplantation, 2024. **Yanhan (Savannah) Tang**, Andrew Li, Alan Scheller-Wolf, Sridhar Tayur.
   *Forthcoming, **Manufacturing & Service Operations Management (MSOM)**.*
   DOI: https://doi.org/10.1287/msom.2022.0412

   - *Runner-up*, 2023 Decision Analysis Society Student Paper Award
   - *Runner-up*, 2023 POMS CSOM Best Student Paper Competition
   - *Second place*, POMS-HK 2023 Best Student Paper Competition
   - *Finalist*, 2022 INFORMS Service Science Best Cluster Paper Award
   - Presented at MSOM Healthcare SIG 2023.
   - Media coverage: Tepper Research Rundown, Ph.D. Health Care Research Showcase

2. Split Liver Transplantation: An Analytical Decision Support Model, 2024. [Link to paper]
   Yanhan (Savannah) Tang, Alan Scheller-Wolf, Sridhar Tayur, Emily R. Perito, John P. Roberts.
   *Accepted for publication, **Operations Research**.*

   - *First place*, 2022 INFORMS DEI Best Student Paper Award
   - *Winner*, INFORMS Public Sector Operations Research 2022 Best Paper Award
   - *Finalist*, 2022 INFORMS IBM Best Student Paper Award Competition
   - Presented at MSOM Healthcare SIG 2022.
   - Media coverage: Tepper Stories, Health Care Initiative, Diversity blog

WORKING PAPERS

3. Optimizing Wearable Devices in Personalized Opioid Use Disorder Treatments Under Budget Constraint, 2025. [Link to paper]

   Kyra Gan, **Yanhan (Savannah) Tang**, Alan Scheller-Wolf, Sridhar Tayur.
   In preparation to be submitted.

4. When Is It Permissible For Artificial Intelligence To Lie? A Trust-Based Approach, 2024. [Link to paper]

   Joy Lu, Tae Wan Kim, Kyusong Lee, Zhaoqi Cheng, **Yanhan (Savannah) Tang**, John Hooker.
   Submitted, Minds & Machines.

   - *Winner*, Society for Business Ethics (SBE) Annual Meeting 2021 Best Paper Award
   - *Finalist*, 2021 SBE Best Practical Solutions Award

WORK IN PROGRESS

5. Human-Artificial Intelligence Teaming and Effects of System Load on Child Welfare Screening, 2024. [Link to extended abstract]

   Yanhan (Savannah) Tang, Zoey Jiang, Alan Scheller-Wolf, Justine Galbraith, Lindsey Lacey.

   - Presented at INFORMS 2024, POMS 2023 & 2024, and Child Welfare Conference 2023 (Cornell)
   - Presented at Rotman Young Scholar Seminar Series 2024 (University of Toronto)

6. A Nested Bayesian Model for Inferring Customer Life-Changing Events Based on Financial Transaction Data, 2025. [Link to abstract]

   Yanhan (Savannah) Tang, Alan Montgomery.

   - Presented at ISMS Marketing Science Conference 2023 and POMS 2023

7. Circular Solutions: Glass Bottle Reusing, Policy Impacts, and Environmental Outcomes, 2025.
   Neda Mirzaeian*, **Yanhan (Savannah) Tang*** (co-first).

8. Voices of the Vulnerable: Analyzing Social Media Discourse on Child Protective Services, 2025.
   Yanhan (Savannah) Tang.

9. Opioid Use Disorders in Social Media Discussions, 2025.
   Amit Basu*, **Yanhan (Savannah) Tang*** (co-first).

OTHER PROJECTS

10. Efficiency, Fairness, and Stability in Peer-to-Peer Ridesharing, 2020. [Link to paper]
    Hoon Oh*, **Yanhan (Savannah) Tang*** (co-first), Zong Zhang, Alexander Jacquilet, Fei Fang.
    Technical report for *Mobility21*.

TEACHING AND EDUCATIONAL EXPERIENCE

2024 Fall	(Cox MSBA) Decision Models	Instructor
2022 Summer	(Tepper Undergrad) Operations Management	Instructor
2021 Summer	(Tepper Undergrad) Operations Management	Grader
2020 ∼ 2022 Fall	(Tepper MBA) Operations Management	TA
2020 Fall	(Tepper MBA) New Product Management	Grader
2020 Fall	(Tepper MBA) Marketing Management	Grader
2020 Summer	(Tepper Undergrad) Operations Management	Grader
2020 Spring	(Tepper MBA) Strategies in Information Markets	Grader
2020 Spring	(Tepper MBA) Sustainable Operations	TA

HONORS AND GRANTS

Finalist, 2024 PSOR Best Video Competition	INFORMS, 2024
William W. Cooper Doctoral Dissertation Award	CMU, 2024
Runner-up, 2023 Decision Analysis Society Student Paper Award	INFORMS, 2023
Runner-up, 2023 POMS CSOM Best Student Paper Competition	POMS, 2023
Runner-up, 2023 POMS-HK Best Student Paper Competition	POMS-HK, 2023
First place, 2022 DEI Best Student Paper Award	INFORMS, 2022
Winner, Public Sector Operations Research 2022 Best Paper Award	INFORMS, 2022
Finalist, IBM Best Student Paper Award Competition	INFORMS, 2022
Finalist, Service Science Best Cluster Paper Award	INFORMS, 2022
Litzenberger Family Fund	Tepper, 2022
PNC Presidential Fellowship	Tepper, 2022
PNC Center for Financial Services Innovation Fellowship	CMU, 2021 $\sim$ 2023
Dean's Research Funding	Tepper, 2021
Winner, Society for Business Ethics Annual Meeting Best Paper Award	SBE, 2021
Finalist, Society for Business Ethics Best Practical Solutions Award	SBE, 2021
Health Care Initiative Funding	Tepper, 2020 $\sim$ 2021
Graduate Student Assembly/Provost Conference Funds	CMU, 2020 & 2022
Graduate Crosswalk GuSH Grant (Co-PI)	CMU, 2019 $\sim$ 2020
William Larimer Mellon Fellowship	CMU, 2018 $\sim$ 2023

PROFESSIONAL SERVICE

SMU Cox ITOM seminar coordinator	2024 - present
Reviewer for *Management Science* and *Production and Operations Management*	2024 - present
PC member for ACM FAccT 2024 & 2025 and EAAMO 2024	2024 - present
Session chair, 2024 INFORMS Annual Meeting	2024
Co-chair, 2023 INFORMS PSOR Best Paper Award	2023
Session co-chair, 2023 INFORMS Healthcare Conference & Annual Meeting	2023
Advisor, CMU Tepper MBA/MSBA capstone projects	2021 $\sim$ 2023
Student liaison, Health Analysis Society (HAS) of INFORMS	2021 $\sim$ 2022
Treasurer, CMU INFORMS Student Chapter	2019 $\sim$ 2020
Co-organizer, CMU INFORMS YinzOR Student Conferences	2019 $\sim$ 2022

PROGRAMMING SKILLS AND LANGUAGES

Programming Language: Python, SAS, SQL, R

Language: English (fluent), Mandarin (native)