

YANHAN (SAVANNAH) TANG

Last update: October 13, 2023

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EDUCATION

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|---|-----------------|
| Carnegie Mellon University (Tepper School of Business) | Pittsburgh, USA |
| PhD in Operations Management, minor in Machine Learning & Statistics (expected) | 2018.8 - 2024.5 |
| MS in Operations Management, minor in Optimization | 2018.8 - 2021.5 |
| Carnegie Mellon University (School of Computer Science) | Pittsburgh, USA |
| MS in Machine Learning | 2022.1 - 2023.5 |
| Tsinghua University (School of Economics and Management) | Beijing, China |
| BS in Information Management and Information Systems | 2014.9 - 2018.7 |

RESEARCH INTERESTS

Application: Child welfare, healthcare, organ allocation, personalized marketing

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

REPRESENTATIVE WORKING PAPERS

1. Multi-Armed Bandits with Endogenous Learning Curves: Applications to Split Liver Transplantation, 2023. [\[Link to paper\]](#)

Yanhan (Savannah) Tang, Andrew Li, Alan Scheller-Wolf, Sridhar Tayur.

*Major revision, **Manufacturing & Service Operations Management (MSOM)**.*

- *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. Acceptance rate: 26%
- Media coverage: [Tepper Research Rundown](#), [Ph.D. Health Care Research Showcase](#)

2. Split Liver Transplantation: An Analytical Decision Support Model, 2023. [\[Link to paper\]](#)

Yanhan (Savannah) Tang, Alan Scheller-Wolf, Sridhar Tayur, Emily R. Perito, John P. Roberts.

*Major revision, **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. Acceptance rate: 16%
- Media coverage: [Tepper Stories](#), [Health Care Initiative](#), DEIC blog

WORK IN PROGRESS

3. Predictive Risk Models-Human Teaming and Effects of System Load on Child Welfare Screening, 2023.

Work in progress. [\[Link to extended abstract\]](#)

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

- Presented at POMS 2023. Upcoming presentation: Child Welfare Conference 2023 (Cornell)
- 4. A Nested Bayesian Model for Inferring Customer Life-Changing Events Based on Financial Transaction Data, 2023. *Work in progress.* [\[Link to abstract\]](#)
Yanhan (Savannah) Tang, Alan Montgomery.
- Presented at ISMS Marketing Science Conference 2023 and POMS 2023
- 5. The Next Best Offer Algorithms for Customer Relationship Management in Financial Services, 2023. *Work in progress.*
Yanhan (Savannah) Tang, Alan Montgomery.
- 6. Split Liver Transplantation Reduces Total Patient Deaths and Improves Fairness, 2023. *Work in progress.*
Yanhan (Savannah) Tang, Alan Scheller-Wolf, Sridhar Tayur, Emily R. Perito, John P. Roberts.

OTHER WORKING PAPERS

- 7. 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*.
- 8. When Is It Permissible For Artificial Intelligence To Lie? A Trust-Based Approach, 2022. [\[Link to paper\]](#)
Joy Lu, Tae Wan Kim, Zhaoqi Cheng, **Yanhan (Savannah) Tang**, Kyusong Lee, John Hooker.
In preparation.
- *Winner*, Society for Business Ethics (SBE) Annual Meeting 2021 Best Paper Award
- *Finalist*, 2021 SBE Best Practical Solutions Award

TEACHING AND EDUCATIONAL EXPERIENCE

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|---|---|--------------------|--------|
| 2022 Summer | (Undergrad) Operations Management (Course rating: 4.33/5) | Instructor | |
| <ul style="list-style-type: none">• 100% response rate in faculty course evaluation with a class size of 21.• Highest overall course rating for the 25 undergraduate <i>Operations Management</i> courses taught by ten different instructors at CMU in the last four years. | | | |
| 2021 Summer | (Undergrad) Operations Management | Neda Mirzaeian | Grader |
| 2020 ~ 2022 Fall | (MBA) Operations Management | Sridhar Tayur | TA |
| 2020 Fall | (MBA) New Product Management | Peter Boatwright | Grader |
| 2020 Fall | (MBA) Marketing Management | Peter Boatwright | Grader |
| 2020 Summer | (Undergrad) Operations Management | Mehmet Aydemir | Grader |
| 2020 Spring | (MBA) Strategies in Information Markets | Peter Stuttgen | Grader |
| 2020 Spring | (MBA) Sustainable Operations | Alan Scheller-Wolf | TA |

HONORS AND GRANTS

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| <i>Runner-up</i> , 2023 Decision Analysis Society Student Paper Award | INFORMS, 2023 |
| <i>Runner-up</i> , 2023 POMS CSOM & POMS-HK Best Student Paper Competitions | POMS, 2023 |
| <i>First place</i> , 2022 DEI Best Student Paper Award | INFORMS, 2022 |
| <i>Winner</i> , Public Sector Operations Research 2022 Best Paper Award | INFORMS, 2022 |
| <i>Finalist</i> , IBM Best Student Paper Award Competition | INFORMS, 2022 |
| <i>Finalist</i> , Service Science Best Cluster Paper Award | INFORMS, 2022 |

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| Litzenberger Family Fund | Tepper, 2022 |
| PNC Presidential Fellowship | Tepper, 2022 |
| PNC Center for Financial Services Innovation Fellowship | CMU, 2021 ~ 2024 |
| Dean's Research Funding | Tepper, 2021 |
| <i>Winner</i> , Society for Business Ethics Annual Meeting Best Paper Award | SBE, 2021 |
| <i>Finalist</i> , Society for Business Ethics Best Practical Solutions Award | SBE, 2021 |
| Health Care Initiative Funding | Tepper, 2020 ~ 2021 |
| Graduate Student Assembly/Provost Conference Funds | CMU, 2020 & 2022 |
| Graduate Crosswalk GuSH Grant (Co-PI) | CMU, 2019 ~ 2020 |
| William Larimer Mellon Fellowship | CMU, 2018 ~ 2023 |

PROFESSIONAL SERVICE

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| Co-chair, 2023 INFORMS PSOR Best Paper Award | 2023 |
| Session co-chair, 2023 INFORMS Healthcare Conference & Annual Meeting | 2023 |
| Advisor, MBA/MSBA capstone projects | 2021 ~ 2023 |
| Student liaison, Health Analysis Society (HAS) of INFORMS | 2021 ~ 2022 |
| Treasurer, CMU INFORMS Student Chapter | 2019 ~ 2020 |
| Co-organizer, CMU INFORMS YinzOR Student Conferences | 2019 ~ 2022 |

PROGRAMMING SKILLS AND LANGUAGES

Programming Language: Python, SAS, SQL, R
Language: English (fluent), Mandarin (native)

REFERENCE

Professor Alan Scheller-Wolf (Chair)

Richard M. Cyert Professor of Operations Management
Tepper School of Business, Carnegie Mellon University
Email: awolf@andrew.cmu.edu

Professor Sridhar Tayur

University Professor of Operations Management; Ford Distinguished Research Chair
Tepper School of Business, Carnegie Mellon University
Email: stayur@cmu.edu

Professor Andrew Li

Assistant Professor of Operations Research
Tepper School of Business, Carnegie Mellon University
Email: aali1@andrew.cmu.edu

Professor Zhaohui (Zoey) Jiang

Assistant Professor of Business Technologies; BP Junior Faculty Chair
Tepper School of Business, Carnegie Mellon University
Email: zhaohuij@andrew.cmu.edu

Professor Alan Montgomery

Professor of Marketing; Head, Ph.D. Program
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