

# YANHAN (SAVANNAH) TANG

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## EDUCATION

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|---|-----------------|
| <b>Carnegie Mellon University (Tepper School of Business)</b>                   | 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 |
| <b>Carnegie Mellon University (School of Computer Science)</b>                  | Pittsburgh, USA |
| MS in Machine Learning  | 2022.1 - 2023.5 |
| <b>Tsinghua University (School of Economics and Management)</b>                 | Beijing, China  |
| BS in Information Management and Information Systems                            | 2014.9 - 2018.7 |

## RESEARCH INTERESTS

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

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

## REPRESENTATIVE WORKING PAPERS

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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

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3. Predictive Risk Models-Human Teaming and Impacts of System Load in 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

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- 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"><li>• 100% response rate in faculty course evaluation with a class size of 21.</li><li>• 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.</li></ul> |   |                    |        |
| 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

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

## REFERENCE

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### **Professor Alan Scheller-Wolf (Chair)**

Richard M. Cyert Professor of Operations Management  
 Tepper School of Business, Carnegie Mellon University  
 Email: [awolf@andrew.cmu.edu](mailto: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](mailto:stayur@cmu.edu)

### **Professor Andrew Li**

Assistant Professor of Operations Research  
 Tepper School of Business, Carnegie Mellon University  
 Email: [aali1@andrew.cmu.edu](mailto: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](mailto:zhaohuij@andrew.cmu.edu)

### **Professor Alan Montgomery**

Professor of Marketing; Head, Ph.D. Program  
 Tepper School of Business, Carnegie Mellon University  
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