

# Amanda Kube

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## Academic Appointments

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University of Chicago

2022–Present

Preceptor in Data Science, Data Science Institute

## Education

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Washington University in St. Louis

2018–2022

Ph.D., Computational and Data Sciences

Dissertation: Data-Driven Decision-Making: Using Counterfactual Predictions to Allocate Scarce Homeless Services Fairly and Efficiently

Advised by Sanmay Das and Patrick Fowler

Defended April 2022

Washington University in St. Louis

2017–2018

M.S., Data Analytics and Statistics

Thesis: Allocating Interventions Based on Counterfactual Predictions: A Case Study on Homelessness Services

Advised by Sanmay Das

Washington University in St. Louis

2013–2017

B.A., Double Major in Psychological and Brain Sciences and Mathematics (Statistics)

Minor in Children's Studies

Summa Cum Laude and Phi Beta Kappa

Thesis: Training Self-Control? A Meta-Analysis

Advised by Joshua Jackson

## Honors and Awards

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2021 - University of Chicago Rising Star in Data Science

2021 - Teaching Citation

2018 - Dean's Select Fellowship

2018 - Summa Cum Laude

2017 - Phi Beta Kappa

## Working Papers

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- [1] **Kube, A.**, Das, S., Fowler, P. J. (Working Paper). Data-Driven Homeless Services Designed for Efficiency and Transparency.
- [2] **Kube, A.**, Das, S., Fowler, P. J., Vorobeychik, Y. (Working Paper). Just Resource Allocation? How Algorithmic Predictions and Human Notions of Justice Interact

## Journal Publications

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- [3] **Kube, A.**, Das, S., Fowler, P. J. (Accepted to JAIR). Fair and Efficient Allocation of Scarce Resources Based on Predicted Outcomes: Implications for Homeless Service Delivery.
- [4] Cheung, F., **Kube, A.**, Tay, L. et al. (2020). The impact of the Syrian conflict on population well-being. *Nature Communications*, 11(1), 1-10.
- [5] Hill, P. L., Cheung, F., **Kube, A.**, Burrow, A. L. (2019). Life engagement is associated with higher GDP among societies. *Journal of Research in Personality*, 78, 210-214.

## Refereed Conference Publications

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- [6] **Kube, A.**, Das, S., Fowler, P. J. (2019). Allocating Interventions Based on Predicted Outcomes: A Case Study on Homelessness Services. Proceedings of the AAAI Conference on Artificial Intelligence.

## Presentations

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- 2021 Integrating human priorities and data-driven improvements in allocation of scarce homeless services to households in need. Oral presentation as a part of the University of Chicago Center for Data and Computing Rising Stars in Data Science Workshop, Chicago, IL
- 2021 Homeless Service Allocation Under Differing Treatment Effect Heterogeneity. Oral presentation as a part of the Canadian Operations Research Society Annual Conference, Toronto, Canada
- 2019 Precision Public Health: Homelessness Prevention Systems. Poster presentation as part of the 12th Washington University in St. Louis Institute for Public Health Conference, St. Louis, MO.
- 2019 Allocating Interventions Based on Predicted Outcomes: A Case Study on Homelessness Services. Oral presentation as part of the 32nd AAAI Conference Artificial Intelligence, Honolulu, HI.
- 2018 Allocating Interventions Based on Counterfactual Predictions: A Case Study on Homelessness Services. Oral presentation as part of the Mechanism Design for Social Good Workshop at the 19th ACM Conference on Economics and Computation, Ithaca, NY.

## Service to the Profession

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### **Program Committee:**

ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO): 2022  
AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI): 2022  
AAMAS Workshop on Autonomous Agents for Social Good (AASG): 2021

Updated: May 2, 2022