

# YANG YE

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<https://reneeyangye.github.io>

## EXPERIENCES

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- **Postdoctoral Associate** *2023.08 - present*  
Center for Infectious Disease Modeling and Analysis  
Yale School of Public Health  
Advisor: Alison Galvani
- **Visiting Scholar** *2021.07 - 2021.09*  
UNC Project-China

## EDUCATION

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- **City University of Hong Kong** *2019.09 - 2023.06*  
Doctor of Philosophy in Data Science  
School of Data Science  
Supervisor: Qingpeng Zhang
- **Huazhong University of Science and Technology** *2015.09 - 2019.06*  
Bachelor of Management in Logistics Management  
School of Artificial Intelligence and Automation

## RESEARCH INTERESTS

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Mathematical Epidemiology, Complex Networks, Public Health

## PUBLICATIONS

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### Peer-reviewed journals

- **Ye, Y.**, Pandey, A., Bawden, C., Sumsuzzman, D. M., Rajput, R., Shoukat, A., et al. (2025). Integrating artificial intelligence with mechanistic epidemiological modeling: a scoping review of opportunities and challenges. *Nature Communications*, 16(1), 1-18 (Editors' Highlights).
- Sumsuzzman, D. M., **Ye, Y.**, Wang, Z., Pandey, A., Langley, J. M., Galvani, A. P., & Moghadas, S. M. (2025). Impact of disease severity, age, sex, comorbidity, and vaccination on secondary attack rates of SARS-CoV-2: a global systematic review and meta-analysis. *BMC Infectious Diseases*, 25(1), 215.
- Pandey, A., **Ye, Y.**, Wells, C. R., Singer, B. H., & Galvani, A. P. (2024). Estimating the lives that could be saved by expanded access to weight-loss drugs. *Proceedings of the National Academy of Sciences*, 121(43), e2412872121.
- **Ye, Y.**, & Zhang, Q. (2024). The futility of economic sanctions in a globalized and interdependent world: a data-driven game theoretical study. *Humanities and Social Sciences Communications*, 11(1), 1-10.
- **Ye, Y.**, Cao, Z., Dajun Zeng, D., & Zhang, Q. (2024). Supply chain loss from easing COVID-19 restrictions: an evolutionary economic-epidemiological modelling study. *Proceedings of the Royal Society A*, 480(2283), 20230803 (Cover feature).
- Jing, F., **Ye, Y. (Joint First Author)**, Zhou, Y., et al. (2023). Identification of Key Influencers for Secondary Distribution of HIV Self-Testing among Chinese MSM: A Machine Learning Approach. *Journal of Medical Internet Research*. 10.2196/37719.
- Zhang, Q., **Ye, Y. (Joint First Author)**, & Zeng, D. D. (2023). Travel restrictions cannot prevent the introduction of new COVID variants. *Journal of Travel Medicine*, taad066.

- Cheng, W., Zhou, H., **Ye, Y.**, Chen, Y., Jing, F., Cao, Z., Zeng, D. D., & Zhang, Q. (2023). Future Trajectory of Respiratory Infections Following the COVID-19 Pandemic in Hong Kong. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 33(1), 013124.
- Liu, W., Pan, J., Zhang, X., Gong, X., **Ye, Y.**, Zhao, X., et al. (2023). Cross-platform product matching based on entity alignment of knowledge graph with RAEA model. *World Wide Web*. 10.1007/s11280-022-01134-y.
- **Ye, Y.**, Zhang, Q., Wei, X., Cao, Z., Yuan, H. Y., & Zeng, D. D. (2022). Equitable access to COVID-19 vaccines makes a life-saving difference to all countries. *Nature Human Behaviour*, 6(2), 207-216 (Cover feature).
- Jing, F., **Ye, Y. (Joint First Author)**, Zhou, Y., Zhou, H., Xu, Z., Lu, Y., et al. (2022). Modelling the geographical spread of HIV among MSM in Guangdong, China: a metapopulation model considering the impact of pre-exposure prophylaxis. *Philosophical Transactions of the Royal Society A*, 380(2214), 20210126.
- **Ye, Y.**, Ni, K., Jing, F., Zhou, Y., Tang, W., & Zhang, Q. (2022). Model-Informed Targeted Network Interventions on Social Networks Among Men Who Have Sex With Men in Zhuhai, China. *IEEE Transactions on Computational Social Systems*, 2022. 10.1109/TCSS.2022.3216756.
- **Ye, Y.**, Zhang, Q., Cao, Z., Chen, F. Y., Yan, H., Stanley, H. E., & Zeng, D. D. (2021). Impacts of Export Restrictions on the Global Personal Protective Equipment Trade Network During COVID-19. *Advanced Theory and Simulations*, 2100352 (Inner-cover featured).
- **Ye, Y.**, Zhang, Q., Cao, Z., & Zeng, D. D. (2021). Optimal vaccination program for two infectious diseases with cross-immunity spreading on a network. *EPL (Europhysics Letters)*, 133(4), 46001 (Featured as Editor's Pick).
- **Ye, Y.**, Zhang, Q., Ruan, Z., Cao, Z., Xuan, Q., & Zeng, D. D. (2020). Effect of heterogeneous risk perception on information diffusion, behavior change, and disease transmission. *Physical Review E*, 102(4), 042314.

#### Peer-reviewed conference proceeding

- **Ye, Y.**, & Zhang, Q. (2021, August). Product Clustering Analysis Based on the Retail Product Knowledge Graph. In *Asia-Pacific Web (APWeb) and Web-Age Information Management (WAIM) Joint International Conference on Web and Big Data* (pp. 37-40). Springer, Singapore.

#### TEACHING EXPERIENCE

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- SDSC2004/GE2343: Data Visualization, Teaching Assistant *Spring, 2022*
- SDSC2004: Data Visualization, Teaching Assistant *Spring, 2021*

#### SCHOLARSHIPS, HONORS AND AWARDS

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- **Outstanding Academic Performance Award for Research Degree Students** *2022.09*  
City University of Hong Kong
- **Research Tuition Scholarship** *2022.09*  
City University of Hong Kong
- **Outstanding Academic Performance Award for Research Degree Students** *2021.09*  
City University of Hong Kong
- **Research Tuition Scholarship** *2021.09*  
City University of Hong Kong
- **Postgraduate Studentship** *2019.09*  
City University of Hong Kong
- **China National Scholarship** (top 0.2% nationwide) *2017.11*  
Huazhong University of Science and Technology

- **China National Scholarship** (top 0.2% nationwide)  
Huazhong University of Science and Technology

2016.11

## PRESENTATIONS

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- “Equitable Access to COVID-19 Vaccines Makes a Life-Saving Difference to All Countries”, presentation delivered in the Centre for Complexity and Complex Networks at the City University of Hong Kong and the Department of Electronic and Information Engineering at the Hong Kong Polytechnic University, 2022.09
- “Equitable Access to COVID-19 Vaccines Makes a Life-Saving Difference to All Countries”, presentation delivered in NetSci2022 Satellite Forum, 2022.07
- “Product Clustering Analysis Based on the Retail Product Knowledge Graph”, presentation delivered in APWeb-WAIM 2021 International Workshops, 2021.08

## REVIEWER OF JOURNALS

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npj Digital Medicine, Philosophical Transactions of the Royal Society A, IEEE Transactions on Computational Social Systems, ACM Transactions on Management Information Systems, BMC Infectious Diseases, International Journal of Infectious Diseases

## SELECTED MEDIA COVERAGE

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- “Répartition des vaccins dans le monde.” CBC/Radio-Canada, 2022.10
- “The benefits of vaccinating the world are clear. The catch is the price tag.” The Washington Post, 2022.02
- “World better protected against Covid if rich nations donated 50% of vaccines to low-income countries.” The Guardian, 2022.02
- “COVID-19: 46% vaccine redistribution best for high- and low-income countries alike.” Nature Asia, 2022.02
- “Mathematical model verifies a correct understanding of epidemic’s severity facilitates disease control.” CityU Research Stories, 2020.12

## OTHERS

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Google scholar | Github | CityU Scholars | Website