

Junsol Kim

Curriculum Vitae

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Department of Sociology
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[[Google Scholar Profile](#)]

Research Interests

Political Sociology, Computational Social Science, Large Language Model, Causal Inference

Education

2021–Current **Ph.D. in Sociology** (Advisor: James Evans), University of Chicago
2021–2023 **M.A. in Sociology**, University of Chicago
2013–2019 **B.S. in Computer Science & B.A. in Sociology**, Yonsei University

Working Papers

Junsol Kim, Byungkyu Lee. (2023). “AI-Augmented Surveys: Leveraging Large Language Models for Opinion Prediction in Nationally Representative Surveys.” [[paper](#)] [[demo](#)]

- Fine-tuned large language models (LLMs) to predict survey participants’ responses, aiming to recover missing public opinions in nationally representative surveys.
- Achieved an AUC of 84%, even when responses were completely missing in a particular year, outperforming previous state-of-the-art missing data imputation methods by 8%p.

Junsol Kim, Zhao Wang, James Evans. (2023). “Individual Misinformation Tagging Reinforces Ideological Echo Chamber; Collective Tagging Weakens Them.” [[paper](#)]

- Applied quasi-experimental, causal inference methods to large-scale social media data to study how misinformation moderation could unintentionally reinforce echo chambers.
- Implemented quasi-experimental methods (interrupted time series and difference-in-differences analyses) for robust causal inference.

Selected Publications (*equal contribution)

Peer-reviewed Journal articles

Ryan Hyon, Yoosik Youm, Junsol Kim, Jeanyoung Chey, Seyul Kwak and Carolyn Parkinson. (2020). “Similarity in Functional Brain Connectivity at Rest Predicts Interpersonal Closeness in the Social Network of an Entire Village.” *Proceedings of the National Academy of Sciences*, 117(52), 33149-33160. [[paper](#)] [[data](#)] [[code](#)]

Yoosik Youm*, Junsol Kim*, Seyul Kwak and Jeanyoung Chey. (2021). “Neural and Social Correlates of Attitudinal Brokerage: Using the Complete Social Networks of Two Entire Villages.” *Proceedings of the Royal Society B: Biological Sciences*, 288(1944), 20202866. [[paper](#)] [[data](#)] [[code](#)]

Yoosik Youm, Byungkyu Lee, Junsol Kim. (2021). “A Measure of Centrality in Cyclic Diffusion Processes: Walk-Betweenness.” *PLoS ONE*, 16(1), e0245476. [[paper](#)] [[data](#)] [[code](#)]

Professional Experience

2021-Current **Doctoral Researcher**, Knowledge Lab, University of Chicago.
2021 **Machine Learning Engineer**, Kakao Corp, South Korea.

Conference Presentations

Junsol Kim*, Byungkyu Lee. “AI-Augmented Surveys: Leveraging Large Language Models for Opinion Prediction in Nationally Representative Surveys.” • *American Sociological Association (ASA) Annual Meeting 2023* • *International Conference on Computational Social Science (IC2S2) 2023*

Junsol Kim*, Haohan Shi, Hsin-keng Ling, Zhao Wang, James Evans. (2023). “Informal Misinformation Flagging Reinforces Ideological Echo Chambers.” • *2023 Plurality Research Network Conference*

Junsol Kim*, Hsin-keng Ling, Haohan Shi, Zhao Wang, James Evans. (2023). “The Diffusion of Fake News in Policy.” • *International Conference on the Science of Science and Innovation (ICSSI) 2023*

Skills

Programming **Python**: Deep Learning (Pytorch/Tensorflow/Transformers/Streamlit), Social Network Analysis, Collaborative Filtering Algorithm
 MATLAB: Neuroimaging Analysis (SPM), Functional Brain Connectivity Analysis
 Stata and **R**: Causal Inference (Difference-in-Differences, Regression Discontinuity, Instrumental Variable, Fixed-Effects Model)
Language English, Korean

Reference

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Max Palevsky Professor
Department of Sociology
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Byungkyu Lee
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Yoosik Youm
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