# **Junsol Kim**

Curriculum Vitae Nov 2023

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## **Research Interests**

Political Sociology, Computational Social Science, Large Language Model, Social Media, 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**

<u>Junsol Kim</u>, 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' missing responses, aiming to recover unmeasured public opinions in surveys.

<u>Junsol Kim</u>, 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.

# **Selected Publications** (\*equal contribution)

*Peer-reviewed journal articles* 

Ryan Hyon, Yoosik Youm, <u>Junsol Kim</u>, 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\*, <u>Junsol Kim</u>\*, Seyul Kwak and Jeanyung 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, <u>Junsol Kim</u>. (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. **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, Regession

Discontinuity, Instrumental Variable, Fixed-Effects Model)

Language English, Korean

#### Reference

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Max Palevsky Professor
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Byungkyu Lee