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## JE HOON CHAE

#### RESEARCH INTEREST

**Political Communication**; Polarization; Political Psychology; Political Rhetoric. **Computational Social Science**; Data Science; Causal Inference; Text-as-Data.

### **EDUCATION**

2020 Yonsei University

M.S. in Media Communication

2017 Yonsei University

B.A. in Theology & Communication

#### **WORKING PAPERS**

- 4. **Chae, J. H.**, Lee, S. Y., & Song, H. (Under review). Attitudinal Persuasion and Perceptual Backfire? Effects of Fact-Checking News Delivered by Partisan Media.
- 3. Min, S., Chae, J. H., Lee, J., & Lee, S. Y. (Drafting). Image as Data: How Instagram photos reveal individual's characteristics and personality.
- 2. Min, S., Chae, J. H., & Han, S. (Drafting). Event Segmentation in Memory for Real-World Social Events: A case study on COVID-19.
- 1. Lee, J., **Chae, J. H.**, Min, S., & Lee, S. Y. (In preparation). Predicting Depression Symptom with Images: Application of auto-encoder.

### **CONFERENCE PRESENTATIONS**

10. **Chae, J. H.**, Song, H., & Lee, S. Y. (2021, October). "Perceiving Fact-Checks as Biased but Nevertheless Persuaded? Effects of Fact-Checking News Delivered by Partisan Media," 117<sup>th</sup> Annual Meeting of American Political Science Association (APSA), Virtual Conference.

- 9. **Chae, J. H.**, Song, H., & Lee, S. Y. (2021, August). "Perceiving Fact-Checks as Biased but Nevertheless Persuaded? Effects of Fact-Checking News Delivered by Partisan Media," 116<sup>th</sup> Annual Meeting of American Sociological Association (ASA), Virtual Conference.
- 8. Min, S., Chae, J. H., Lee, J., & Lee, S. Y. (2021, July). "Identifying individuals using topic patterns of Instagram photos,"  $\mathcal{I}^{th}$  International Conference on Computational Social Science ( $IC^2S^2$ ), Virtual Conference.
- 7. **Chae, J. H.**, Song, H., & Lee, S. Y. (2021, May). "Perceiving Fact-Checks as Biased but Nevertheless Persuaded? Effects of Fact-Checking News Delivered by Partisan Media," 71<sup>th</sup> Annual Conference of International Communication Association (ICA), Virtual Conference.
- 6. Min, S., Chae, J. H., & Han, S. (2020, August). "Event Segmentation in Memory for Real-world Social Events," *Annual Conference of the Korean Society for Cognitive & Biological Psychology*, Virtual Conference.

#### · Selected for The Best Presentation Award

- 5. **Chae, J. H.**, & Lee, S. Y. (2020, July). "The Persuasion Effect of Fact-Checking News and Perceived Media Bias," *Annual Conference of the Korean Communication Association*, Dae-gu, Republic of Korea.
  - Selected for The Best Graduate Student Paper (First Prize)
- 4. Min, S., Chae, J. H., Lee, J., & Lee, S. Y. (2020, July). "Image as Data: How Instagram Photos Reveal Individual's Characteristics and Personality," *Annual Conference of the Korean Psychology Association*, Virtual Conference.
- 3. **Chae, J. H.** (2019, October). "How News Media Covered #MeToo Movement: Application of Structural Topic Modeling and Word Embedding," 10<sup>th</sup> Honours Symposium for Asian Ph.D. Students in Communication Research, Seoul, Republic of Korea.
- 2. **Chae, J. H.**, & Lee, S. Y. (2019, July). "News Framing of Refugee Issue in South Korea: Application of Topic Model," 5<sup>th</sup> International Conference on Computational Social Science (IC<sup>2</sup>S<sup>2</sup>), Amsterdam, Netherlands.
- 1. Min, S., Chae, J. H., Lee, J., Park, J., & Kim, H. (2019, March). "Exploration of the Relationship Between Individual Psychological Traits and Behavioral Patterns on Social Media," *Yonsei Institute of Convergence Science Conference*, Seoul, Republic of Korea.

#### RESEARCH EXPERIENCES

- 2021 Research Assistant for Kyungmo Kim
- 2018–2020 Research Assistant for Sang Yup Lee
  - 2017 Research Assistant for Jungho Han

	AWARDS & GRANTS	
2020	Best Graduate Student Paper (First Prize) Korean Society for Journalism & Communication Studies	₩ 1,000,000 (≈ \$900)
2020	<b>Distinguished Dissertation Award</b> Yonsei University	
2018	Institute of Convergence Science (ICONS) Yonsei University	₩ 3,000,000 (≈ \$2,500)
2017-2020	Brain Korea 21+ National Research Foundation (NRF)	₩ 14,400,000 (≈ \$12,000)
2015	Academic Honor Yonsei University	
	TEACHING EXPERIENCES	
2020	Yonsei University (Graduate Invited Lecturer) Web-Scraping & Text Mining with Python, Department of Physical Education	
	Yonsei University (Undergraduate Teaching Fellow)	
2019	COM4206: Communication Text Mining, Department of Communication	
2019 2017	COM3128: Public Relations, Department of Communication COM3144: Theories of Advanced Public Relation, Department of Communication	
	RELEVANT COURSEWORKS	
	Harvard University (Summer Program & Extension)	
2022	MATH-E21B: Linear Algebra ( <i>Prof. Robert Winters</i> )	
2021	GOV2001/STAT-E200: Quantitative Social Science Methods I (Prof. Gary King)	
2021 2021	MATH-E23A: Linear Algebra & Real Analysis I ( <i>Prof. Grant Murray</i> )  MATH-E156: Mathematical Statistics ( <i>Prof. Dmitry Kurochkin</i> )	
2021	MATH-E150. Wathernatical statistics (170). Dimity Kurotikin)  MATH-E16: Calculus II with Series & Differential Equations (Prof. Srdjan Divac)	
2021	MATH-S1A: Calculus I (Prof. Carolyn Gardner-Thomas)	
2021	csci-s50: Intensive Introduction to Computer Science (Prof. David Malan)	
	Yonsei University	
2020	SOC7625: Mathematical Sociology (Prof. Jeong Han Kang)	
2020	сом6604: Online Data Analysis Seminar (Prof. Sang Yup Lee)	
2020	LIS8016: Seminar in Text Mining ( <i>Prof. Min Song</i> )	
2020 2018	POL6516: Political Psychology ( <i>Prof. Shang E. Ha</i> ) COM6600: Online Data Collection and Analysis ( <i>Prof. Sang Yup Lee</i> )	
2016	COM3164: Data Communication Science ( <i>Prof. Young Min Baek</i> )	
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#### **TRAINING**

- 2021–2022 Harvard University, Extension & Summer Program (Math & Statistics courseworks)
  - 2021 Hartie School Data Science Summer School (DS3)
  - 2021 Summer Institute for Computational Social Science (SICSS)
  - 2021 University of Texax Austin, Summer Statistics Institute
  - 2021 Deep Learning and Artificial Intelligence Summer School (DLAI5)
  - 2019 4-weeks workshop of Generalized Linear Model, Korea Social Science Data Archive
  - 2018 Linear Algebra for Data Science Workshop, Yonsei University
  - 2018 Introduction to Statistics with R, Yonsei University

#### **SKILLS**

#### **Statistical Modeling**

Multi-level regression (lme4), Causal inference (matching, two-stage least square, difference in difference, regression discontinuity), Bayesian estimation (Markov Chain Monte Carlo, Variational Inference, Stan, brms), Mediation (mediation, processR), Time-series modeling (ARIMA, Hidden Markov Model, Vector Autoregression), Network analysis (ERGM, QAP)

### **Behavioral Data Analysis**

Experimental design (DeclareDesign), Network-based experiment (Empirica, breadboard), Survey (MTurk, Lucid, Qualtrics, Google Forms)

## **Online Data Analysis**

Web-scraping (BeautifulSoup4, scrapy, Selenium, Instagram Scraper), Social media data collection (Tweepy, rtweet)

### **Machine Learning**

Penalized regression (Lasso, Ridge, Elastic Net), Dimensionality reduction (PCA, *t*-SNE, UMAP), Classification (KNN, Naive Bayes, Decision Tree, SVM, Ensemble Model), Unsupervised model (GMM, k-means), Deep Learning (CNN, RNN, LSTM, Elmo, BERT, GPT-3, GAN, Keras, PyTorch, TensorFlow)

### **Automated Text Analysis**

Text pre-processing (spaCy, nltk, spacyr, quanteda, konlpy, soynlp), Topic modeling (LSA, LDA, STM, keyATM, rectr), Sentiment analysis (Dictionary-based approach, LIWC, Supervised ML), Word embedding (word2vec, Glove, fastText, BERT)

# Programming/Statistical Language and Tools

Programming language (Python, C, C++, JavaScript, Java), Statistical tools (R, Stata, SPSS, Jamovi, JASP), Other language or tools (LTEX, Git, GitHub, SQL, HTML, CSS, Markdown)

### **REFERENCES**

### Sang Yup Lee

Professor of Communication & Digital Analytics Department of Communication, Yonsei University 50, Yonsei-ro, Seodaemun-gu, Seoul, Republic of Korea Email: sangyuplee@yonsei.ac.kr

## **Hyunjin Song**

Professor of Communication Department of Communication, Yonsei University 50, Yonsei-ro, Seodaemun-gu, Seoul, Republic of Korea Email: hyunjinsong@yonsei.ac.kr

## Kyungmo Kim

Professor of Communication Department of Communication, Yonsei University 50, Yonsei-ro, Seodaemun-gu, Seoul, Republic of Korea Email: kkmo@yonsei.ac.kr

(Additional references are available upon request)