

## JE HOON CHAE

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### RESEARCH INTEREST

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

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### EDUCATION

- 2020 **Yonsei University**  
M.S. in Media Communication
- 2017 **Yonsei University**  
B.A. in Communication & Theology

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### 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.

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### 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," 7<sup>th</sup> *International Conference on Computational Social Science (IC<sup>2</sup>S<sup>2</sup>)*, 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.

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#### AWARDS & GRANTS

2020	<b>Best Graduate Student Paper</b> , Korean Society for Journalism & Comm. Studies	\$1,000
2020	<b>Distinguished Dissertation Award</b> , Yonsei University	
2018	<b>Institute of Convergence Science (ICONS)</b> , Yonsei University	\$3,000
2017–2020	<b>Brain Korea 21+</b> , National Research Foundation (NRF)	\$12,000
2015	<b>Academic Honor</b> , Yonsei University	

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#### TEACHING EXPERIENCE

##### Yonsei University (Graduate Invited Lecturer)

2020 Web-Scraping & Text Mining with Python, Department of Physical Education

##### Yonsei University (Undergraduate Teaching Fellow)

2019 COM4206: Communication Text Mining, Department of Communication

2019 COM3128: Public Relations, Department of Communication

2017 COM3144: Theories of Advanced Public Relation, Department of Communication

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#### RESEARCH EXPERIENCE

2021 Research Assistant for Kyungmo Kim

2018–2020 Research Assistant for Sang Yup Lee

2017 Research Assistant for Jungho Han

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#### WORKING EXPERIENCE

2020–2022 Yongsan Ward's Office

*Mandatory Military Service*

2013 National Assembly

*Internship of Aide for Member of the National Assembly*

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## LIFE EXPERIENCE

### 2014– **Backpacker**

Traversed Siberia from Vladivostok to Murmansk (Russia), Norway, Finland, North Pole (Svalbard), New Zealand, Hokkaido (Japan), Iceland, Andalusia (Southern Spain), and Scotland.

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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 Texas 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

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## RELEVANT COURSEWORKS

### **Harvard University (Summer Program & Extension)**

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|------|--|-------------------------------------|
| 2022 | MATH-E21B: Linear Algebra                                  | <i>Prof. Robert Winters</i>         |
| 2021 | GOV2001/STAT-E200: Quantitative Social Science Methods I   | <i>Prof. Gary King</i>              |
| 2021 | MATH-E23A: Linear Algebra & Real Analysis I                | <i>Prof. Grant Murray</i>           |
| 2021 | MATH-E156: Mathematical Statistics                         | <i>Prof. Dmitry Kurochkin</i>       |
| 2021 | MATH-E16: Calculus II with Series & Differential Equations | <i>Prof. Srdjan Divac</i>           |
| 2021 | MATH-S1A: Calculus I                                       | <i>Prof. Carolyn Gardner-Thomas</i> |
| 2021 | CSCI-S50: Intensive Introduction to Computer Science       | <i>Prof. David Malan</i>            |

### **Yonsei University**

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|------|--|-----------------------------|
| 2020 | SOC7625: Mathematical Sociology              | <i>Prof. Jeong Han Kang</i> |
| 2020 | COM6604: Online Data Analysis Seminar        | <i>Prof. Sang Yup Lee</i>   |
| 2020 | LIS8016: Seminar in Text Mining              | <i>Prof. Min Song</i>       |
| 2020 | POL6516: Political Psychology                | <i>Prof. Shang E. Ha</i>    |
| 2018 | 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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## 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 ( $\LaTeX$ , Git, GitHub, SQL, HTML, CSS, Markdown)

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## **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](mailto:sangyuplee@yonsei.ac.kr)

### **Hyunjin Song**

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Department of Communication, Yonsei University  
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Email: [hyunjinsong@yonsei.ac.kr](mailto:hyunjinsong@yonsei.ac.kr)

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(Additional references are available upon request)