

## Junghwan (Jay) Lee

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<b>EDUCATION</b>	Columbia University, NY, United States Master of Arts in Statistics	2018 - 2020
	Sungkyunkwan University Bachelor of Science in Industrial Engineering Bachelor of Economics	2012 - 2016

<b>EXPERIENCE</b>	<i>Research Staff Associate</i> Columbia University, NY	02/2020 - Present
	<i>Research Assistant</i> Columbia University, NY	01/2019 - 12/2019
	<i>Researcher</i> Seoul National University College of Medicine, Seoul, Korea	10/2018 - 01/2019
	<i>Army Officer</i> The 2nd Operational Command, Deagu, Korea	02/2016 - 06/2018
	<i>Research Assistant</i> Sungkyunkwan University, Seoul, Korea	01/2015 - 12/2015

<b>RESEARCH INTERESTS</b>	<b>Artificial Intelligence, Natural Language Processing, Applied Statistics, Healthcare, Medicine</b>
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### **PUBLICATIONS** Journal Articles & Peer-reviewed Conference Proceedings

1. **J. Lee**, JH. Kim, C. Liu, G. Hripcsak, C. Ta\*, C. Weng\*, COHD-COVID: Columbia Open Health Data for COVID-19 Research, *Under review*.
2. **J. Lee**, C. Ta, JH. Kim, C. Liu\*, C. Weng\*, Severity Prediction for COVID-19 Patients via Recurrent Neural Networks, *AMIA Informatics Summit 2021, Accepted*.
3. **J. Lee\***, C. Liu\*, JH. Kim, A. Butler, N. Shang, C. Pang, K. Natarajan, P. Ryan, C. Ta, C. Weng, Comparative Effectiveness of Medical Concept Embedding for Feature Engineering in Phenotyping, *Under review*.
4. JH. Kim, CN. Ta, C. Liu, C. Sung, AM. Butler, LA. Stewart, L. Ena, C. Friedman, JR. Rogers, N. Shang, **J. Lee**, H. Liu, A. Ostropolets, K. Natarajan, PB. Ryan, SM. Lee, MSV. Elkind, C. Weng, Towards Clinical Data-Driven Eligibility Criteria Optimization for Interventional COVID-19 Clinical Trials, *JAMIA*, 2020.

5. J.R. Rogers, **J. Lee**, Z. Zhou, YK. Cheung, G. Hripcsak, C. Weng, Contemporary Use of Real-World Data for Clinical Trial Conduct in the United States: A Scoping Review, *JAMIA*, 2020.
6. A. Butler, **J. Lee**, Y. So, L. Busacca, K. Marder, HN. Ginsberg, D. Frederick, I. Castaneda, C. Weng, Impact of IMPACT: Longitudinal Analysis of an Integrated Patient Scheduling System in a Clinical Research Setting, *AMIA Annual Symposium*. 2020.
7. C. Liu, C. Ta, J. Rogers, Z. Li, **J. Lee**, A. Butler, N. Shang, F. Kury, L. Wang, F. Shen, L. Ena, C. Friedman, H. Liu, C. Weng, Ensembles of Natural Language Processing Systems for Portable Phenotyping Solutions, *Journal of Biomedical Informatics* 100, 103318, 2019.

### Miscellaneous

1. **J. Lee\***, C. Ta\*, C. Liu, JH. K, C. Weng, COHD-COVID: Publicly Shared COVID-19 Statistics Mined from EHR Data, Observational Health Data Science and Informatics (OHDSI) Symposium, 2020, Poster presentation.
2. **J. Lee**, Severity Prediction in COVID-19: Can We Predict Disease Severity and Outcomes at Early Stage?, Columbia University Zuckerman Institute, October 2020, Invited talk.
3. **J. Lee**, C. Liu, N. Shang, X. Jiang, K. Chen, K. Kalluri, C. Pang, K. Nataraajan, P. Ryan, C. Weng, Generate Concept Representations using OMOP Ontology Graph, Observational Health Data Science and Informatics (OHDSI) Symposium, 2019, Poster presentation.

### ONGOING PROJECTS

Generating Discrete Data using Deep Generative Models

Pre-trained Representations of Medical Concepts

### SERVICES

*npj Digital Medicine*, Reviewer

### HONOURS & AWARDS

Commendation for Commitment, Republic of Korea Army, 2018  
 Meritorious Unit Commendation, The 2nd Operational Command, 2017  
 Merit-based Scholarship, Sungkyunkwan University, 2015  
 Academic Scholarship, Sungkyunkwan University, 2013  
 Gifted Student of Incheon National University, 2004-2005  
 Young Gifted Student of Incheon City Office of Education, 2002-2004