

Jay J. Lee

Staff Associate
Department of Biomedical Informatics, Columbia University Irving Medical Center
New York, NY, 10032

EDUCATION *Master of Arts, Statistics* Sep, 2018 - Feb, 2020
Concentration: Statistical Machine Learning
Columbia University, New York, NY

Bachelor of Science, Industrial Engineering Feb, 2012 - Feb, 2016
Bachelor of Economics, International Trade and Policy (double major)
Sungkyunkwan University, Seoul, South Korea

EXPERIENCE *Staff Associate* Feb 2020 - Present
Columbia University, Department of Biomedical Informatics, New York

Research Associate Jan 2019 - Dec 2020
Columbia University, Department of Biomedical Informatics, New York

Researcher Oct 2018 - Jan 2019
Seoul National University, College of Medicine, Seoul, Korea

Army Officer Feb 2016 - June 2018
Republic of Korea Army, The 2nd Operational Command, Deagu, Korea

Research Assistant Jan 2015 - Dec 2015
Sungkyunkwan University, Department of Systems Mgmt Engineering, Suwon, Korea

RESEARCH INTERESTS **Deep Learning, Interpretable Representation Learning, Machine Learning, Applications to Healthcare**

PUBLICATIONS **Journal Articles & Conference Proceedings**

1. 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.

Posters & Presentations

1. **J. Lee**, C. Liu, N. Shang, X. Jiang, K. Chen, K. Kalluri, C. Pang, K. Natarajan, P. Ryan, C. Weng Generate the Concept Representation using OMOP Ontology Graph. 2019 OHDSI Symposium, arxiv: , 2019.

WORKING PAPERS

1. Enhancing Medical Concept Representation Using Deep Neural Networks
2. Synthetic Patient Generation using Improved Variational Autoencoder
3. Medical Document Recommender System Using Multimodal Representations

**COMMUNITY
SERVICE**

Collaborator of Observational Health Data Sciences and Informatics (OHDSI)

**HONOURS &
AWARDS**

Commendation for Army Commitment, The 2nd Operational Command, 2018

Meritorious Unit Commendation, The 2nd Operational Command, 2017

Merit-based Scholarship, Sungkyunkwan University, 2015

Academic Scholarship, Sungkyunkwan University, 2013

Gifted Student in Physics at Incheon National University, 2004-2005

Incheon City Office of Education's Young Gifted Student, 2002-2004