# Jinhyuk Lee

Ph.D. in Computer Science and Engineering Data Mining & Information Systems Laboratory Korea University

jinhyuk\_lee@korea.ac.kr

https://jhyuklee.github.io

#501B, Woojung Hall of Informatics, 145 Anam-ro, Seoul, Korea 02841

#### **EDUCATION**

Korea University, Seoul Mar 2016 - Aug 2019

Ph.D. in Computer Science and Engineering (4.5/4.5)

Advisor: Prof. Jaewoo Kang

Mar 2011 - Feb 2016 Korea University, Seoul

B.S. in Computer Science and Engineering (3.71/4.5)

Advisor: Prof. Jaehoon Lee

State University of New York Korea, Incheon June 2013 - Aug 2013

Software Technology and Enterprise (Summer School)

#### **PUBLICATIONS**

#### Look at the First Sentence: Position Bias in Question Answering

Miyoung Ko, Jinhyuk Lee, Hyunjae Kim, Gangwoo Kim, Jaewoo Kang EMNLP 2020 (long)

#### Adversarial Subword Regularization for Robust Neural Machine Translation

Jungsoo Park, Mujeen Sung, Jinhyuk Lee, Jaewoo Kang

Findings of ACL: EMNLP 2020 (short)

#### Contextualized Sparse Representations for Real-Time Open-Domain Question Answering

Jinhyuk Lee, Minjoon Seo, Hannaneh Hajishirzi, Jaewoo Kang

ACL 2020 (short)

#### Biomedical Entity Representations with Synonym Marginalization

Mujeen Sung, Hwisang Jeon, Jinhyuk Lee, Jaewoo Kang

ACL 2020 (long)

#### BioBERT: a Pre-trained Biomedical Language Representation Model for Biomedical Text Mining

Jinhyuk Lee\*, Wonjin Yoon\*, Sungdong Kim, Donghyeon Kim, Sunkyu Kim, Chan Ho So, Jaewoo Kang Bioinformatics (2020)

#### Real-Time Open-Domain Question Answering on Wikipedia with Dense-Sparse Phrase Index

Minjoon Seo\*, Jinhyuk Lee\*, Tom Kwiatkowski, Ankur Parikh, Ali Farhadi, Hannaneh Hajishirzi ACL 2019 (long)

# ReSimNet: Drug Response Similarity Prediction based on Siamese Neural Network

Minji Jeon\*, Donghyeon Park\*, Jinhyuk Lee, Hwisang Jeon, Miyoung Ko, Sunkyu Kim, Yonghwa Choi, Aik-Choon Tan, Jaewoo Kang

Bioinformatics (2019)

# CollaboNet: Collaboration of Deep Neural Networks for Biomedical Named Entity Recognition

Wonjin Yoon\*, Chan Ho So\*, Jinhyuk Lee, Jaewoo Kang

BMC Bioinformatics (2019)

#### A Neural Named Entity Recognition and Multi-Type Normalization Tool for Biomedical Text Mining

Donghyeon Kim, Jinhyuk Lee, Chan Ho So, Hwisang Jeon, Minbyul Jeong, Yonghwa Choi, Wonjin Yoon, Mujeen Sung, Jaewoo Kang

IEEE Access (2019)

# Pre-trained Language Models for Biomedical Question Answering

Wonjin Yoon, Jinhyuk Lee, Donghyeon Kim, Minbyul Jeong, Jaewoo Kang BioASQ Workshop at ECML PKDD 2019

# Ranking Paragraphs for Improving Answer Recall in Open-Domain Question Answering

Jinhyuk Lee, Seongjun Yun, Hyunjae Kim, Miyoung Ko, Jaewoo Kang EMNLP 2018 (short)

#### Learning User Preferences and Understanding Calendar Contexts for Event Scheduling

Donghyeon Kim\*, Jinhyuk Lee\*, Donghee Choi, Jaehoon Choi, Jaewoo Kang CIKM 2018 (full)

#### DeepNAP: Deep Neural Anomaly Pre-detection on a Semiconductor Fab

Chunggyeom Kim\*, Jinhyuk Lee\*, Raehyun Kim, Youngbin Park, Jaewoo Kang Information Sciences (2018)

#### Name Nationality Classification with Recurrent Neural Networks

Jinhyuk Lee, Hyunjae Kim, Miyoung Ko, Donghee Choi, Jaehoon Choi, Jaewoo Kang IJCAI 2017 (full)

#### **EXPERIENCE**

**Korea University** Sep 2019 - Present Seoul, Korea Postdoctoral Researcher

- · Leading a research on automatic knowledge base construction from question answering models
- · Advising researches on question answering, biomedical text mining, and other NLP applications.
- · Teaching Data Science lecture (CVH126) and fulfilling mandatory military service.

**NAVER Clova** 

July - Sep 2019, Nov 2018 - Feb 2019

Research Intern (Mentor: Minjoon Seo)

Seongnam, Korea

- · Worked on real-time open-domain question answering.
- · Improved contextualized sparse representations for question answering.
- · Worked on large pre-trained language models for the biomedical domain.

Konolabs, Inc. Mar - Aug 2016

Research Intern (Mentor: Jaehoon Choi)

Seoul, Korea

· Developed a deep learning-based calendar scheduling system.

Tagme, Inc. Aug 2014 - Feb 2016

Startup CEO Seoul, Korea

· Provided cloud storage service with memorable file links.

June - July 2014 Jiransoft, Inc. Seoul, Korea

Software Engineer Intern

· Developed an android mobile application.

#### **HONORS & AWARDS**

Winner of the Seventh BioASQ Challenge (Task 7b, Phase B) Provided a backbone model (BioBERT) and handled yes/no questions.	Sep 2019
Winner of Multi-Targeting Drug DREAM Challenge	Nov 2018
Korea University Best Honors Scholarships	Mar 2014
The Grand Prize, Start-up Competition, Korea University	Jan 2014
Venture Internship Program Scholarships, Korea University	Dec 2013
Software Technology and Enterprise Program Scholarships, Korea University	Mar 2013 - Dec 2014

# **SERVICES**

# EMNLP 2020, ACL 2020, AKBC 2020, 2nd MRQA Workshop at EMNLP 2019

Conference/Workshop Reviewer

# PLOS ONE, IEEE Access, IEEE TCBB

Journal Reviewer

# **TEACHING**

CVH126 Introduction to Data Science, Korea University Lecturer	Fall 2019
COSE214 Algorithms, Korea University Teaching Assistant	Fall 2016

#### **REFERENCES**

# Jaewoo Kang

Professor, Department of Computer Science and Engineering, Korea University kangj@korea.ac.kr

# Jaegul Choo

Associate Professor, Graduate School of Artificial Intelligence, KAIST jchoo@kaist.ac.kr

#### **Minjoon Seo**

Assistant Professor, Graduate School of Artificial Intelligence, KAIST seominjoon@gmail.com