# Mujeen Sung

I am a PhD student in the Department of Computer Science and Engineering at Korea University (<u>DMIS Lab</u>) advised by Prof. <u>Jaewoo Kang</u>. My research areas of interest are in natural language processing and deep learning. Specifically, I enjoy thinking about how to make artificial intelligence better extract knowledge from large-scale corpus (e.g., <u>Wikipedia</u> in general domain or <u>PubMed</u> in biomedical domain).

# **Education**

## Korea University

PhD Student • Mar.2019 - Present

MS, PhD integrated in Data Mining and Information Systems Lab

## Korea University

Bachelor's degree • Mar.2008 — Feb.2015

B.S in Division of Computer and Communication Engineering

# **Publications**

## Can Language Models be Biomedical Knowledge Bases?

Mujeen Sung, Jinhyuk Lee, Sean S. Yi, Minji Jeon, Sungdong Kim and Jaewoo Kang

EMNLP, 2021 (Short)

[Paper] [Code]

#### Learning Dense Representations of Phrases at Scale

Jinhyuk Lee, Mujeen Sung, Jaewoo Kang, Danqi Chen

ACL, 2021 (Long)

[Paper] [Code] [Demo]

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

Jungsoo Park, Mujeen Sung, Jinhyuk Lee and Jaewoo Kang

Findings of EMNLP, 2020 (Short)

[Paper] [Code]

# Biomedical Entity Representations with Synonym Marginalization

Mujeen Sung, Hwisang Jeon, Jinhyuk Lee and Jaewoo Kang

ACL, 2020 (Long)

[Paper] [Code]

# 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** and Jaewoo Kang

IEEE Access, 2019

[Paper] [Code] [Demo]

# Workshops

# Data-centric and model-centric approaches for biomedical question answering

Wonjin Yoon, Jaehyo Yoo, Sumin Seo, Mujeen Sung, Minbyul Jeong, Gangwoo Kim, Jaewoo Kang

CLEF, 2021 Workshop 9th BioASQ

# [Paper]

# Answering Questions on COVID-19 in Real-Time

Jinhyuk Lee, Sean S. Yi, Minbyul Jeong, Mujeen Sung, WonJin Yoon, Yonghwa Choi, Miyoung Ko and Jaewoo Kang

EMNLP, 2020 Workshop NLP-COVID

[Paper] [Code] [Demo]

# Transferability of Natural Language Inference to Biomedical Question Answering

Minbyul Jeong\*, Mujeen Sung\*, Gangwoo Kim, Donghyeon Kim, Wonjin Yoon, Jaehyo Yoo and Jaewoo Kang

CLEF, 2020 Workshop 8th BioASQ

[Paper] [Code]

# **Work Experiences**

#### Lemon Cloud

Backend Developer • Mar, 2018 - Feb, 2019

- Develop backend service with Node.js, Elastic Search and AWS.
- Lemon Cloud is a start-up company that provides E-Commerce Platforms.

#### GE Ultrasound Korea

Software Engineer • Jan, 2015 — Feb, 2018

- Design User Interfaces in Ultrasound Imaging Systems with Visual C++/MFC.
- <u>GE Ultrasound Korea</u> is a Healthcare corporation that develops and manufactures ultrasound imaging systems to the global Healthcare market.

#### Kona I

Software Team Intern • Jan, 2014 - Aug, 2014

- Create a validation tool for cryptography algorithms on Smart Card with Java.
- Kona I is an IT corporation that provides total solutions and platforms to the global Fin-tech market.

# Recognition

# OnDream Future Technology Scholarship

Hyundai Motor Chung Mong-Koo Foundation • 2021

## 2020 KU Graduate School Achievement Award

Korea University • 2021

#### Invited talker in Tech Talk at Naver

Naver • 2021

# Invited talker in the Top Conference session at KSC 2020

Korea Software Congress 2020 • 2020

# The winner of the BioASQ challenge in 8b Phase B

CLEF, 2020 Workshop 8th BioASQ • 2020

(News)

# **Social Links**

- **Github**: https://github.com/mjeensung
- Twitter: http://twitter.com/mujeensung