Taesun **Whang**

NATURAL LANGUAGE PROCESSING & ARTIFICIAL INTELLIGENCE

✉ taesunwhang@gmail.com | ⌨ taesunwhang

Research Interests

I received a MS in computer science and engineering from Korea University (Advisor: Prof. Heuiseok Lim). Currently I am an NLP researcher at Wisenut Inc. and working as an alternative to mandatory military service.

- Natural Language Processing
- Dialog System

Education

Korea University   *Seoul, South Korea*
M.S. IN COMPUTER SCIENCE AND ENGINEERING, GPA: 4.24 / 4.5   *Mar. 2018 - Feb. 2020*

Inha University   *Incheon, South Korea*
B.S. IN INDUSTRIAL ENGINEERING, GPA: 3.95 / 4.5 (RANK: 2 / 36)   *Mar. 2012 - Aug. 2016*
- **State University of New York at Stony Brook**, New York, USA — *Semester Abroad Spring 2015*

Selected Publications

Auxiliary Sequence Labeling Tasks for Disfluency Detection
Dongyub Lee, Byeongil Ko, Myeong Cheol Shin, **Taesun Whang**, Daniel Lee, Eun Hwa Kim, EungGyun Kim, Jaechoon Jo
Proceedings of the 22nd Interspeech (INTERSPEECH'21), 2021

Deep Context- and Relation-Aware Learning for Aspect-based Sentiment Analysis
Shinhyeok Oh*, Dongyub Lee*, **Taesun Whang**, IlNam Park, Gaeun Seo, EungGyun Kim, Harksoo Kim
Proceedings of 59th Annual Meeting of the Association for Computational Linguistics (ACL'21), 2021

Do Response Selection Models Really Know What's Next? Utterance Manipulation Strategies for Multi-turn Response Selection
Taesun Whang*, Dongyub Lee*, Dongsuk Oh, Chanhee Lee, Kijong Han, Dong-hun Lee, Saebyeok Lee
Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI'21), 2021

Reference and Document Aware Semantic Evaluation Methods for Korean Language Summarization
Dongyub Lee, Myeong Cheol Shin, **Taesun Whang**, Seungwoo Cho, Byeongil Ko, Daniel Lee, EungGyun Kim, Jaechoon Jo
Proceedings of the 28th International Conference on Computational Linguistics (COLING'20), 2020

An Effective Domain Adaptive Post-Training Method for BERT in Response Selection
Taesun Whang, Dongyub Lee, Chanhee Lee, Kisu Yang, Dongsuk Oh, HeuiSeok Lim
Proceedings of the 21st Interspeech (INTERSPEECH'20), 2020

Enhanced Sequential Representation Augmented with Utterance-level Attention for Response Selection
Taesun Whang, Dongyub Lee, Chanhee Lee, Heuiseok Lim
AAAI 2019 Workshop on Dialogue System Technology Challenges 7 (DSTC7), 2019

EmotionX-KU: BERT-Max based Contextual Emotion Classifier
Kisu Yang, Dongyub Lee, **Taesun Whang**, Seolhwa Lee, Heuiseok Lim
IJCAI 2019 Workshop on the 7th Natural Language Processing for Social Media (Shared Task, EmotionX), 2019

Honors & Awards

2019.10   **Best Paper Award, 2019**, HCLT 2019   *South Korea*
2019.08   **2nd place in the EmotionX (shared task of SocialNLP)**, IJCAI 2019   *Macau, China*
2014-2016 **National Science and Technology Undergraduate Scholarship**, Korea Student Aid Foundation   *South Korea*

Research Experience

Korean dialogue system for contents recommendation   *Seoul, South Korea*
PROJECT MANAGER   *April. 2019. - Current*
- Overall project management, retrieval-based dialogue system, emotion classification in conversation
- Funded by the Electronics and Telecommunications Research Institute (ETRI)

Research and development of human-inspired multiple intelligence   *Seoul, South Korea*

Full-time researcher   *June. 2018 - Current*

- Human-inspired language understanding model
- Funded by the Korea Ministry of Science and ICT (MSIT)

Adaptive UI/UX for smart senior   *Seoul, South Korea*

Full-time researcher   *2018*

- Movie recommender systems
- Funded by the Korea Ministry of Culture, Sports and Tourism (MCST) and Korea Creative Content Agency (KOCCA)

Professional Experience

Korea Institute of Industrial Technology (KITECH), Robot Group   *Ansan, South Korea*

Research Intern   *July. 2017 - December. 2017*

- Participated a project "Standard open DB establishment and evaluation system for intelligent vehicle awareness technology suport"
- Developed embedded based data acquisition system and a camera controller (implemented using C++ and QT framework)
- Funded by the Korea Evaluation Institute of Industrial Technology (KEIT)

Teaching Experience

SKC   *South Korea*

Instructor   *Oct. 2019*

- Deep Learning and Natural Language Processing Course
- Introduction to CNN for natural language processing, sentiment analysis with CNN using Keras

LG Leadership Academy   *South Korea*

Instructor   *July-Aug. 2019*

- Natural language processing course
- Introduction to Tensorflow, text classification with RNN and CNN

Data Campus for College Students (Korea University)   *South Korea*

Instructor   *July. 2019*

- Organized by the Korea Data Agency
- Natural language processing course
- Introduction to Tensorflow, introduction to RNN, sequence labeling with RNN

Human-Inspired AI Research Institute   *South Korea*

Instructor   *June. 2019*

- Natural language processing course
- NLP applications, introduction to CNN, text classification with CNN and TensorFlow

POSCO   *South Korea*

Instructor   *June. 2019*

- Natural language processing course
- NLP applications, word representations, text classification with CNN using Keras

Korea University   *South Korea*

Teaching Assistant   *2018-2019*

- (DFE610) NLP for Digital Finance Engineering [Autumn 2018, 2019]
- Introduction to CNN, text classification with CNN using TensorFlow

All Publications

International Conference

Auxiliary Sequence Labeling Tasks for Disfluency Detection
   Dongyub Lee, Byeongil Ko, Myeong Cheol Shin, **Taesun Whang**, Daniel Lee, Eun Hwa Kim, EungGyun Kim, Jaechoon Jo
   Proceedings of the 22nd Interspeech (INTERSPEECH'21), 2021

Deep Context- and Relation-Aware Learning for Aspect-based Sentiment Analysis
   Shinhyeok Oh*, Dongyub Lee*, **Taesun Whang**, IlNam Park, Gaeun Seo, EungGyun Kim, Harksoo Kim
   Proceedings of 59th Annual Meeting of the Association for Computational Linguistics (ACL'21), 2021

Do Response Selection Models Really Know What's Next? Utterance Manipulation Strategies for Multi-turn Response Selection
   Taesun Whang*, Dongyub Lee*, Dongsuk Oh, Chanhee Lee, Kijong Han, Dong-hun Lee, Saebyeok Lee
   Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI'21), 2021

Reference and Document Aware Semantic Evaluation Methods for Korean Language Summarization
Dongyub Lee, Myeong Cheol Shin, **Taesun Whang**, Seungwoo Cho, Byeongil Ko, Daniel Lee, EungGyun Kim, Jaechoon Jo
Proceedings of the 28th International Conference on Computational Linguistics (COLING'20), 2020

An Effective Domain Adaptive Post-Training Method for BERT in Response Selection
Taesun Whang, Dongyub Lee, Chanhee Lee, Kisu Yang, Dongsuk Oh, HeuiSeok Lim
Proceedings of the 21st Interspeech (INTERSPEECH'20), 2020

Enhanced Sequential Representation Augmented with Utterance-level Attention for Response Selection
Taesun Whang, Dongyub Lee, Chanhee Lee, Heuiseok Lim
AAAI 2019 Workshop on Dialogue System Technology Challenges 7 (DSTC7), 2019

EmotionX-KU: BERT-Max based Contextual Emotion Classifier
Kisu Yang, Dongyub Lee, **Taesun Whang**, Seolhwa Lee, Heuiseok Lim
IJCAI 2019 Workshop on the 7th Natural Language Processing for Social Media (Shared Task, EmotionX), 2019

INTERNATIONAL JOURNAL

Exploring the Data Efficiency of Cross-Lingual Post-Training in Pretrained Language Models
Chanhee Lee, Kisu Yang, **Taesun Whang**, Chanjun Park, Andrew Matteson, Heuiseok Lim
Applied Sciences 11.5 (2021) p. 1974. 2021

Multi-view attention network for visual dialog
Sungjin Park*, **Taesun Whang***, Yeochan Yoon, Heuiseok Lim
Applied Sciences 11.7 (2021) p. 3009. 2021

DOMESTIC CONFERENCE

A Technique for Improving Relation Extraction Performance using Entity Information in Language Model
YunA Hur, Dongsuk Oh, **Taesun Whang**, Seolhwa Lee, Heuiseok Lim
The 32th Annual Conference on Human Cognitive Language Technology, 2020

Korean Dependency Parsing using Pretrained Language Model and Specific-Abstraction Encoder
Bongsu Kim, **Taesun Whang**, Jungwook Kim, Saebyeok Lee
The 32th Annual Conference on Human Cognitive Language Technology, 2020

Korean ELECTRA for Natural Language Processing Downstream Tasks
Taesun Whang, Jungwook Kim, Saebyeok Lee
The 32th Annual Conference on Human Cognitive Language Technology, 2020

Predicting the Politeness of an Utterance with Deep Learning
Chanhee Lee, **Taesun Whang**, Minjeong Kim, Heuiseok Lim
The 31th Annual Conference on Human Cognitive Language Technology, 2019

Hyperpartisan News Detection using Sentence BERT Embedding
Jungwoo Lim, **Taesun Whang**, Dongsuk Oh, Kisu Yang, Heuiseok Lim
The 31th Annual Conference on Human Cognitive Language Technology, 2019

Word Sense Disambiguation Using Knowledge Embedding
Dongsuk Oh, Kisu Yang, Kuekyeong Kim, **Taesun Whang**, Heuiseok Lim
The 31th Annual Conference on Human Cognitive Language Technology, 2019

Metonymy Resolution based on Neural Approach
Taesun Whang, Chanhee Lee, Kisu Yang, Dongyub Lee, Youngeun Koo, Taehee Jeon, Heuiseok Lim
The 31th Annual Conference on Human Cognitive Language Technology, 2019

Cross-Validated Ensemble Methods in Natural Language Inference [Best Paper]
Kisu Yang, **Taesun Whang**, Dongsuk Oh, Chanjun Park, Heuiseok Lim
The 31th Annual Conference on Human Cognitive Language Technology, 2019

Adversarial Learning for Natural Language Understanding
Dongyub Lee, **Taesun Whang**, Chanhee Lee, Heuiseok Lim
The 30th Annual Conference on Human Cognitive Language Technology, 2018

Attention-based Next Utterance Classification in Dialogue System
Taesun Whang, Dongyub Lee, Heuiseok Lim
The 30th Annual Conference on Human Cognitive Language Technology, 2018

DOMESTIC JOURNAL

Automatic Generation of Fashion Image Dataset by using Progressive GAN
Yanghee Kim, Chanhee Lee, **Taesun Whang**, Gyeongmin Kim, Heuiseok Lim
Journal of the Korea Internet of Things Society 4 (2018) pp. 1–6. 2018