CHEONEUM PARK

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EDUCATION

Kangwon National University   March 2016 – February 2020

Ph.D. in Computer Science   *Chuncheon, Kangwon*

Area: Natural Language Processing, Coreference Resolution, Question Answering

Advisor: Changki Lee

WORK EXPERIENCE

Hanbat National University   *Daejeon, South Korea*

Assistant Professor   March 2024 –

SK Telecom   *Seoul, South Korea*

Manager   April 2023 – February 2024

AIR Lab@42dot (Hyundai Global Software Center)   *Seoul, South Korea*

Part Lead and Senior Research Engineer   September 2022 – March 2023

AIR Lab (AIRS Company) @Hyundai Motor Company   *Seoul, South Korea*

Part Lead   January 2022 – September 2022

Senior Research Engineer   January 2021 – September 2022

Research Engineer   January 2020 – December 2020

SERVICES

Adot @ SKT   2023
- The human interactive AI agent service that applies the LLM and RAG pipeline in SKT.
- Reference: https://a.sktelecom.com/

EDITH QnA @ NiroPlus   August 2022
- The voice agent service 'AI Assistant' firstly implemented by AIRS Company in the Hyundai Motor Group.
- Equipped with electric vehicle related QnA system.
- Reference: http://dailycar.co.kr/content/news/44548/

EV6 QnA @ KIA Owner's Manual   December 2021
- Installed QnA framework (FAQ, IR, Rerank) in KIA Owner's Manual App.
- Voice QnA system for West Europe.

- Reference: https://apps.apple.com/kr/app/kia-owners-manual-official/id1485829909?l=en

KIA360   August 2021

- Mounted on KIA AI DOCENT.
- The first FAQ service, which guide KIA's ADAS in AIRS Company.
- Reference: http://dailycar.co.kr/content/news/40554/

PUBLICATIONS

International Journal

[13] [sci] **Cheoneum Park**, Seohyeong Jeong, Juae Kim*. MaQA: Car Manual Question Answering as a Neural FAQ Classification Problem. *Electronics*, Vol. 13, No. 24, Dec. 2024, doi: 10.3390/electronics13244972.

[12] [sci] **Cheoneum Park**, Seohyeong Jeong, Juae Kim*. ADMit: Improving NER in Automotive Domain with Domain Adversarial Training and Multi-task Learning. *ESWA*, Vol. 225, No. 1, Sep. 2023, doi: 10.1016/j.eswa.2023.120007.

[11] [scie] **Cheoneum Park** and Juae Kim*. Robust Multi-task Learning-based Korean POS Tagging to Overcome Word Spacing Errors. *ACM TALLIP*, Vol. 22, Issue 6, No. 182, Jun. 2023, doi: 10.1145/3591206.

[10] [sci] **Cheoneum Park**. Multi-task Learning with Contextual Hierarchical Attention for Korean Coreference Resolution. *ETRI Journal*, Vol. , No. 12, Feb. 2023, pp. 93-104, doi: 10.4218/etrij.2021-0293

[9] [sci] **Cheoneum Park**, Junho Lim, Jihee Ryu, Hyun-ki Kim, Changki Lee*. Simple and Effective Neural Coreference Resolution for Korean. *ETRI Journal*, Vol. 43, No. 6, Dec. 2021, pp. 1038-1048, doi: 10.4218/etrij.2020-0282

[8] [sci] **Cheoneum Park**, Soyoon Park, Seungyoung Lim, Myungji Kim, Jooyoul Lee, Changki Lee*. Korean TableQA: Structured Data Question Answering based on Span Prediction Style with S^3-NET. *ETRI Journal*, Vol. 42, No. 6, Dec. 2020, pp. 899-911, doi: 10.4218/etrij.2019-0189

[7] [scie] **Cheoneum Park**, Heejun Song, Changki Lee*. S^3-NET: SRU-based Sentence and Self-matching Networks for Machine Reading Comprehension. *ACM TALLIP*, Vol. 19, No. 3, Feb. 2020, doi: 10.1145/3365679

[6] [sci] **Cheoneum Park**, Heejun Song, and Changki Lee*. VS^3-NET: Neural Variational Inference for Machine Reading Comprehension. *ETRI Journal*, Vol. 41, no. 6, Dec. 2019, pp. 771-781, doi: 10.4218/etrij.2018-0467

[5] [sci] **Cheoneum Park**, Changki Lee*, Lynn Hong, Yigyu Hwang, Teajoon Yoo, Jaeyong Jang, Yunki Hong, Kyung-Hoon Bae, and Hyun-Ki Kim. S^2-NET Machine Reading Comprehension with SRU-based Self-matching Networks. *ETRI Journal*, Apr. 2019, pp. 371-382, doi: 10.4218/etrij.2017-0279.

[4] [scie] Sangkeun Jung, Changki Lee*, and **Cheoneum Park**. Multitask Pointer Network for Korean Dependency Parsing. *ACM TALLIP*, Vol. 18, No. 3, Feb. 2019, doi: 10.1145/3282442.

[3] [sci] **Cheoneum Park**, Changki Lee*, Soojong Lim. Mention Detection using Pointer Networks for Coreference Resolution. *ETRI Journal*, 12, Oct. 2017, pp. 652-661 (ETRI Wise QA)

[2] [scie] Changki Lee, Sangkeun Jung*, **Cheoneum Park**. Anaphora Resolution with Pointer Networks. *Pattern Recognition Letters*, Vol 95, 1 Aug. 2017, pp.1-7

[1] [sci] **Cheoneum Park**, Kyoung-Ho Choi, Changki Lee*, Soojong Lim. Korean Coreference Resolution with Guided Mention Pair Model using the Deep Learning. *ETRI Journal*, Vol.38, No.6, Dec. 2016, pp.1207-1217 (ETRI Wise QA)

International Conference

[16] **Cheoneum Park***, Seohyeong Jeong, Minsang Kim, KyungTae Lim and Yong-Hun Lee. SCV: Light and Effective Multi-Vector Retrieval with Sequence Compressive Vectors. *COLING industry track*, Jan. 2025.

[15] Wonho Lee, Yena Jang, Yongjae Lee, Seungcheol Ha, Kim Seul Ki, **Cheoneum Park**, Changbeom Choi, Taehoon Kim*. A Study on Joint Maximum-Likelihood Detection for Downlink LEO Satellite Communications with Different 8QAM Constellations. *ICCE-Asia*, Nov. 2024.

[14] Naeun Yoon, Seungju Lee, Kim Seul Ki, **Cheoneum Park**, Taehoon Kim, Hojun Jin*. Energy Consumption Prediction using CNN-LSTM Models: A Time Series Big Data Analysis of Electricity, Heating, Hot Water, and Water. *ICCE-Asia*, Nov. 2024.

[13] Minji Lee, Wonho Lee, Sunmin Lee, Taehoon Kim, **Cheoneum Park***. Korean News Summarization with Contrasts by Augmenting Counterfactual Data. *ICCE-Asia*, Nov. 2024.

[12] Chanwoo Lee, Hyunjeong Lee, Minsang Kim, Hyun Kim, Haneol Jang, **Cheoneum Park***. Harnessing LLMs for VQA: A Prompted Benchmark with Animate/Inanimate Keywords. *Special Track - AI@ICTC*, Oct. 2024.

[11] DongSu Kim, SeoYeon Oh, **Cheoneum Park**, Haneol Jang. Dual-Stream Dual-Backbone Architecture for HyperSpectral Face Anti-Spoofing. *Special Track - AI@ICTC*, Oct. 2024.

[10] Minsang Kim, **Cheoneum Park**, Seungjun Baek*. Augmenting Query and Passage for Retrieval-Augmented Generation using LLMs for Open-Domain Question Answering. *EMNLP*, Nov. 2024.

[9] Hwanhee Lee, **Cheoneum Park**, Seunghyun Yoon, Trung Bui, Franck Dernoncourt, Juae Kim, and Kyomin Jung. Factual Error Correction for Abstractive Summaries Using Entity Retrieval. *Proceedings of the 2nd Workshop on Natural Language Generation, Evaluation, and Metrics (GEM)@EMNLP*, Dec. 2022.

[8] Minwoo Lee, Seungpil Won, Juae Kim, Hwanhee Lee, **Cheoneum Park**, Kyomin Jung. CrossAug: A Contrastive Data Augmentation Method for Debiasing Fact Verification Models. *CIKM '21*, Oct. 2021, pp. 3181–3185

[7] **Cheoneum Park**, Jay Shin, Sungjun Park, Junho Lim, and Changki Lee. Fast End-to-end Coreference Resolution for Korean. *Findings of the Association for Computational Linguistics: EMNLP 2020*, Nov. 2020.

[6] **Cheoneum Park**, Changki Lee*, and Hyunki Kim. Coreference Resolution with Hierarchical Pointer Networks based on Pointing Methods. *2020 IEEE International Conference on Big Data and Smart Computing (IEEE BigComp 2020)*, Feb. 2020.

[5] **Cheoneum Park**, Young-Jun Jung, Kihoon Kim, Geonyeong Kim, Jae-Won Jeon, Seongmin Lee, Junseok Kim, and Changki Lee*. KNU-HYUNDAI's NMT system for Scientific Paper and Patent Tasks on WAT 2019. **1st** for five-language pairs *WAT@EMNLP 2019*: 81-89, Nov. 2019.

[4] **Cheoneum Park***, Juae Kim*, Hyeon-gu Lee*, Reinald Kim Amplayo*, Harksoo Kim, Jungyun Seo, and Changki Lee. (* equal contribution) ThisIsCompetition at SemEval-2019 Task 9: BERT is unstable for out-of-domain samples, **2nd** (subtask-A), *Task9 SemEval@NAACL-HLT 2019*, Jun. 2019.

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[2] KyungTae Lim, **Cheoneum Park**, Changki Lee, and Thierry Poibeau. *CoNLL 2018 Shared Task*, SEx BiST: A Multi-Source Trainable Parser with Deep Contextualized Lexical Representations, **2nd (UAS)**, **4th (LAS)**, first place of parsing English, French and Korean. *CoNLL 2018 conference*, Nov. 2018.

[1] **Cheoneum Park**, Heejun Song, Changki Lee*, KNU CI System at SemEval-2018 Task4: Character Identification by Solving Sequence-Labeling Problem, **1st** (main characters + others), *Task4 SemEval@NAACL–HLT* 2018: 655-659, Jun. 2018.

Domestic Journal (in Korean)

[19] **Cheoneum Park***, Minsang Kim, Hyun Kim. Introduction to Neural Retriever. *JOK*, JOK, Vol. 43, No. 2, pp. 40-50, Feb. 2025.

[18] **Cheoneum Park**. Introduction to Coreference Resolution. *JOK*, Vol. 39, No. 4, pp. 21-29, Apr. 2021.

[17] Youngjun Jung, **Cheoneum Park**, Changki Lee, Junseok Kim. English-Korean Neural Machine Translation using MASS with Relative Position Representation. *JOK*, Vol. 47, No. 11, pp. 1038-1043, Nov. 2020.

[16] Kihun Kim, **Cheoneum Park**, Changki Lee, Hyunki Kim. Korean End-to-end Neural Coreference Resolution with BERT. *JOK*, Vol. 47, No. 10, Oct. 2020.

[15] Kihun Kim, **Cheoneum Park**, Changki Lee, Hyunki Kim. Korean End-to-End Neural Coreference Resolution Using Higher-Order Inference. *KTCP*, Vol. 26, No. 5, May 2020.

[14] **Cheoneum Park**, Changki Lee*. Sentimental Analysis of Korean Movie Review using Variational Inference and RNN based on BERT. *KTCP*, Vol. 25, No. 11, pp. 552-558, Nov. 2019.

[13] **Cheoneum Park**, Dongheon Lee, Kihoon Kim, Changki Lee*, and Hyunki Kim. Korean Movie Review Sentiment Analysis using Self-Attention and Contextualized Embedding. *JOK*, Vol.46, No.9, pp. 901-908, Sep. 2019.

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[11] **Cheoneum Park**, Changki Lee*, and Hyunki Kim. Korean Machine Reading Comprehension using S3-Net based on Position Encoding. *JOK*, Vol. 46, No. 3, pp. 234-240, Mar. 2019.

[10] **Cheoneum Park**, Hyunsun Hwang, Changki Lee*, and Hyunki Kim. Korean Coreference Resolution using FastText and Pointer Networks based on Self-Matching Attention. *KTCP*, Vol. 24, No. 12, pp. 635-641, Dec. 2018.

[9] **Cheoneum Park**, Changki Lee*, Sulyn Hong, Yigyu Hwang, Taejoon Yoo, and Hyunki Kim. Korean Machine Reading Comprehension with S2-Net. *JOK*, Vol. 45, No. 12, pp. 1260-1268, Dec. 2018.

[8] **Cheoneum Park** and Changki Lee. Korean Coreference Resolution using Stacked Pointer Networks based on Position Encoding. *KTCP*, Vol. 24, No. 3, pp.113-121, Mar. 2018. (ETRI Wise QA, NRF-2017M3C4A7068188)

[7] **Cheoneum Park** and Changki Lee. Coreference Resolution using Hierarchical Pointer Networks. *KTCP*, Vol. 23, No. 9, pp.542-549, Sep. 2017. (ETRI Wise QA)

[6] **Cheoneum Park** and Changki Lee. Korean Dependency Parsing using Pointer Networks. *JOK*, Vol. 44, No. 8, pp. 822-831, Aug. 2017. (ETRI Wise QA)

[5] **Cheoneum Park** and Changki Lee. Mention Detection with Pointer Networks. *JOK*, Vol. 44, No. 8, pp. 774-781, Aug. 2017. (ETRI Wise QA)

[4] **Cheoneum Park** and Changki Lee. Coreference Resolution for Korean Pronouns using Pointer Networks. *JOK*, Vol. 44, No. 5, pp. 496-502, May, 2017. (ETRI Wise QA)

[3] **Cheoneum Park** and Changki Lee. Pointer Networks based on Skip Pointing Model. *KTCP*, Vol. 22, No. 12, pp. 625-631, Dec. 2016. (ETRI Wise QA)

[2] Kyoung-Ho Choi, **Cheoneum Park** and Changki Lee. Coreference Resolution for Korean using Mention Pair with SVM. *KTCP*, Vol. 21, No. 4, pp. 333-337, Apr. 2015. (ETRI Wise QA)

[1] **Cheoneum Park**, Kyoung-Ho Choi and Changki Lee. Korean Coreference Resolution using the Multi-pass Sieve. *JOK*, Vol. 41, No. 11, pp. 992-1005, Nov. 2014. (ETRI Wise QA)

Domestic Conference (in Korean)

[50] Minji Lee, Jeonghun Yuk, Byeongho Lee, Kyungtae Lim, Kyoungha Lee, **Cheoneum Park***. Korean Benchmark for Science and Technology Information in Specialized, *HCLT*, 2024.

[49] Dong-Su Kim, Seo-Yeon Oh, Suan Kim, **Cheoneum Park**, Hanyeol Jang. Face anti-spoofing method using contrastive learning and color jitttering, *KDFS*, 2024.

[48] Ashleigh T. Manjoro, YeongMuk Lee, **Cheoneum Park**, Inkyu Bang, Taehoon Kim*. Research Trends of Machine Learning based Cellular Random Access, *KICS*, 2024.

[47] Hyoungwon Seo, Jisang Lee, **Cheoneum Park**, Haneol Jang. Data Preprocessing and Augmentation Methodsfor SAR to Optical Image Translation, *KCC*, 2024.

[46] Jisang Lee, Hyeong-Won Seo, **Cheoneum Park**, Haneol Jang. Crop-Paste Technique for Enhancing Object Detection Performance in Synthetic Aperture Radar Images, *KCC*, 2024.

[45] **Cheoneum Park***, Hanyeol Jang, Yong-Hun Lee. Multi-Vector Retriever with Compressed Span Representation, *KCC*, 2024.

[44] Eunsu Kim, Soojong Do, **Cheoneum Park***. Korean Named Entity Recognition using D-Tag, *HCLT*, 2022.

[43] **Cheoneum Park**, Seohyung Jung, and Mirye Lee. Hierarchical Model and Domain Adversarial Training-based Retrieval and Reading Comprehension System for Car Manual. *HMG Conference*, 2022.

[42] **Cheoneum Park**, Juae Kim, and Seohyung Jung. Automotive Domain FAQ Classification Model with Contrastive Learning. *HMG Conference*, 2022.

[41] **Cheoneum Park**, Juae Kim, Sungwook Kim, Eunyoung Park, and Mirye Lee. Fine-grained Named Entity Recognition for Mobility Domain with Multi-task Learning. *HMG Conference*, 2022.

[40] **Cheoneum Park**, Juae Kim, Seohyung Jung, Donghyun Kim, Seongwook Kim, Eunyoung Park, and Cheongjae Lee. Car Manual Question Answering with Neural FAQ Model. *HMG Conference*, 2021.

[39] Soojong Do, **Cheoneum Park***, Cheongjae Lee, Kyuyeol Han, Mirye Lee. Syllable-based Korean Named Entity Recognition and Slot Filling with ELECTRA. *HCLT*, 2020.

[38] Dongheon Lee, **Cheoneum Park**, Changki Lee*, Seungyoung Lim. Multi-paragraph Machine Reading Comprehension Model using BERT-SRU and HTML Tag Features. *KSC*, 2019.

[37] **Cheoneum Park**, Hyunki Kim, Changki Lee*. Korean Named Entity Recognition using Knowledge Distillation based on Ensemble. *KSC*, 2019.

[36] **Cheoneum Park**, Kihoon Kim, Hyunki Kim, Changki Lee*. Korean Coreference Resolution using Knowledge Distillation based on Ensemble. *KSC*, 2019.

[35] **Cheoneum Park**, Changki Lee*, Hyunki Kim. Korean Morphological Analysis and Part-Of-Speech Tagging with LSTM-CRF based on BERT. *HCLT*, 2019.

[34] Young-Jun Jung, **Cheoneum Park**, Changki Lee*. English-Korean Neural Machine Translation using MASS. *HCLT*, 2019.

[33] Kihoon Kim, **Cheoneum Park**, Changki Lee*, Hyunki Kim. Korean End-to-end Neural Coreference Resolution with BERT. *HCLT*, 2019.

[32] **Cheoneum Park**, Changki Lee*, Jun-Ho Lim, Hyunki Kim. Korean Dependency Parsing with BERT. *KCC*, 2019.

[31] **Cheoneum Park**, Kihoon Kim, Changki Lee*, Jun-Ho Lim, Jihee Ryu, Hyunki Kim. Korean Coreference Resolution using Deep Biaffine based on BERT. *KCC*, 2019.

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[29] Dongheon Lee, **Cheoneum Park**, Changki Lee*, Soyoon Park, Seungyoung Lim, Myungji Kim, and Jooyoul Lee. Korean Machine Reading Comprehension using BERT. *KCC*, 2019.

[28] Kihoon Kim, **Cheoneum Park**, Changki Lee*. Korean End-to-end Neural Coreference Resolution using Higher-order Inference. *KCC*, 2019.

[27] **Cheoneum Park**, Changki Lee*. Korean Movie Review Sentimental Analysis using RNN-based Variational Inference. *KSC*, 2018.

[26] **Cheoneum Park**, Changki Lee*. Korean Answer Sentence Selection using Co- and Self-attention mechanism. *KSC*, 2018.

[25] **Cheoneum Park**, Geonyeong Kim, Hyunsun Hwang, and Changki Lee*. Contextualized Embedding-based Korean Movie Review Sentiment Analysis. *HCLT*, 2018.

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[23] **Cheoneum Park**, Changki Lee*, Soyoon Park, Seungyoung Lim, Myungji Kim, and Jooyoul Lee. Structured Data Question Answering using S^3-NET. *HCLT*, 2018.

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[21] **Cheoneum Park**, Changki Lee and Hyunki Kim. Korean Coreference Resolution using Pointer Networks based on Self-Matching Attention. *KSC*, 2017.

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[11] **Cheoneum Park** and Changki Lee. Coreference Resolution for Pronouns with Pointer Networks. *KCC*, 2016.

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[8] **Cheoneum Park** and Changki Lee. Mention Detection of Coreference Resolution using Deep Learning. *KIISE-KBS Symposium*, 2015.

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PATENTS

International Patents

Link: https://patents.justia.com/search?q=Cheoneum+Park

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[7] **Cheoneum Park**, Seohyeong Jeong, Juae Kim. INPUT-OUTPUT SYSTEM AND METHOD OF CONTROLLING THE SAME FOR VEHICLE. Dec 04, 2023, US18/528,026.

[6] **Cheoneum Park**, Juae Kim, Cheongjae Lee, Soo Jong Do. METHOD OF TRAINING POS TAGGING MODEL, COMPUTER-READABLE RECORDING MEDIUM AND POS TAGGING METHOD. Jun 05, 2023, (application number) US: 18/205,615.

[5] **Cheoneum Park**, Juae Kim. METHOD FOR TRAINING MACHINE READING COMPREHENSION MODEL, COMPUTER-READABLE RECORDING MEDIUM AND QUESTION ANSWERING SYSTEM. Jun 01, 2023, (application number) US: 18/204,585.

[4] **Cheoneum Park**, Juae Kim. SYSTEM FOR GENERATING ANSWERS BASED ON MULTI-TASK LEARNING AND CONTROL METHOD THEREOF. May 10, 2023, (application number) US: 18/195,770.

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[2] **Cheoneum Park**, Juae Kim, Donghyeon Lee, Mirye Lee, Cheongjea Lee. NAMED ENTITY RECOGNITION SYSTEM AND NAMED ENTITY RECOGNITION METHOD. Dec 14, 2022, (application number) US: 18/065,891.

[1] **Cheoneum Park**, Donghyeon Kim, Sungwook Kim, Mirye Lee, Cheongjea Lee. QUESTION AND ANSWER SYSTEM AND METHOD FOR CONTROLLING THE SAME. 2020/10, (application number) CN: 202210149110.9, US: 17/673,287.

Domestic Patents (in Korean)

[20] **Cheoneum Park**. System and Method for Retrieving Information (정보 검색 시스템 및 방법). 2024/10/21, (application number) 10-2024-0144139.

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[16] **Cheoneum Park**, Yeonsoo Yim. Method, Apparatus, and Computer-readable Medium for Error Correction on Document Summarization (문서 요약에 대한 오류 수정 방법, 장치 및 컴퓨터-판독가능 기록매체). 2023/03, (application number) 10-2023-0033520.

[15] **Cheoneum Park**, Juae Kim, Seohyeong Jeong. QESTION AND ANSWER SYSTEM AND METHOD FOR CONTROLLING THE SAME (질의응답 시스템 및 그 제어 방법). 2023/01, (application number) 10-2023-0002717.

[14] Juae Kim, **Cheoneum Park**, Seohyeong Jeong, Yaegyoung Kim. Method for training and inferring datasets and apparatus thereof (데이터셋을 학습하고 추론하는 방법 및 그 장치). 2022/12, (application number) 10-2022-0185014.

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[12] **Cheoneum Park**. LEARNING METHOD OF MACHING READING COMPREHENSION MODEL, COMPUTER-READABLE RECORDING MEDIUM AND QUESTION ANSWERING SYSTEM (자동차 매뉴얼 대상 계층구조 기계독해 기술을 이용한 질의응답 시스템). 2021/10, (application umber) 10-2022-0115267.

[11] **Cheoneum Park**, Juae Kim. QUESTION AND ANSWER SYSTEM AND METHOD FOR CONTROLLING THE SAME (자동차 매뉴얼 대상 질의 응답을 위한 질문분석 시스템 및 방법). 2021/10, (application number) 10-2022-0057970

[10] **Cheoneum Park**, Juae Kim, Soojong Do, Cheongjea Lee. LEARNING METHOD OF POS TAGGING MODEL, COMPUTER-READABLE RECORDING MEDIUM AND POS TAGGING METHOD (품사 태깅 모델의 학습 방법, 컴퓨터 판독 가능한 기록 매체 및 품사 태깅 방법). 2021/06, (application number) 10-2022-0094262.

[9] Soojong Do, Seohyeong Jeong, **Cheoneum Park**, Kyuyeol Han, Mirye Lee, Cheongjea Lee. METHOD FOR TRAINING SLOT TAGGING MODEL, COMPUTER READABLE MEDIUM, SPEECH

RECOGNITION APPARATUS AND ELECTRONIC DEVICE (슬롯 태깅 모델의 학습 방법, 컴퓨터 판독 가능한 기록 매체, 음성 인식 장치 및 전자 장치). 2021/06, (application number) 10-2022-0029592.

[8] **Cheoneum Park**, Juae Kim, Donghyeon Lee, Mirye Lee, Cheongjea Lee. NAMED ENTITY RECOGNIZING SYSTEM AND METHOD OF RECOGNIZING NAMED ENTITY (개체명 인식 시스템 및 개체명 인식 방법). 2021/06, (application number) 10-2021-0188485.

[7] **Cheoneum Park**, Donghyeon Kim, Sungwook Kim, Mirye Lee, Cheongjea Lee. QUESTION AND ANSWER SYSTEM AND METHOD FOR CONTROLLING THE SAME (질의응답 시스템 및 그 제어 방법). 2020/10, (application number) KR: 10-2021-0021874.

[6] Jangseong Bae, Changki Lee, Geonyoung Kim, **Cheoneum Park**, Jaewon Jeon and Hyunsun Hwang. Method for generating similar malicious codes and method for improving malicious code detection performance using the same (유사 악성코드 생성 방법 및 이를 이용한 악성코드 탐지 성능 향상 방법). 2019/05/08, (application number) 10-2019-0053640.

[5] Changki Lee, Hyunsun Hwang, Jangseong Bae, **Cheoneum Park**, Geonyoung Kim and Jaewon Jeon. Korean morphological analysis method with linear time complexity using limited neural network and recording medium recording the same (제한된 신경망을 이용한 선형 시간 복잡도를 갖는 한국어 형태소 분석 방법 및 이를 기록한 기록매체). 2019/11/21, (registration number) 10-2049517.

[4] Changki Lee, **Cheoneum Park**, Jangseong Bae, Hyunsun Hwang, Jihee Ryu and Hyunki Kim. System and method for coreference resolution using hierarchical pointer networks (계층적 포인터 네트워크를 이용한 상호참조해결 시스템 및 방법). 2019/10/11, (registration number) 10-2033458.

[3] Changki Lee, **Cheoneum Park**, Jangseong Bae, Hyunsun Hwang and Geonyoung Kim. System and method for korean dependency parsing using pointer networks based on multi-task learning (멀티 태스크 학습 기반 포인터 네트워크를 이용한 한국어 의존 구문 분석 시스템 및 방법). 2019/02/11, (registration number) 10-1948613.

[2] Yigyu Hwang, Taejun Ryu, Sulynn Hong, Chanki Lee, Hyunki Kim and **Cheoneum Park**. APPARATUS FOR ANSWERING A QUESTION BASED ON MACHING READING COMPREHENSION AND METHOD FOR ANSWERING A QUESTION USING THEREOF (기계 독해에 기초한 질의 응답 장치 및 이를 이용한 질의 응답 방법). 2018/02/23, (registration number) 10-2116518.

[1] Changki Lee, **Cheoneum Park** and Kyoung-Ho Choi. Method for korean dependency parsing using deep learning (딥 러닝을 이용한 한국어 의존 구문 분석 방법). 2016/08/01, (registration number) 10-1646461.

ACHIEVEMENTS AND AWARDS

· **1 Special Award**: Hyundai Motor Company (2022)

· **1 Excellence in Research Award**: KNU (2020)

· **14 Best Paper Awards**: KCC (2016, 2018), KIISE-KBS Symposium (2016, 2017), HCLT (2016, 2017, 2018, three awards at 2019, 2024), KIISE winter 2016, KSC (2017, 2019)

· **5 Best Presentations**: KCC (2014, 2019), KIISE winter 2016, KSC 2017, KCC 2024

· **1 Student Paper Award**: KCC 2014

· **1 Grand Prize**: Graduation Competition 2013 at KNU

TEACHING EXPERIENCE

· Lecturer, Opensource SW Programming (Fall 2024)
· Lecturer, Natural Language Processing (Fall 2024)
· Lecturer, Career Planning I (Fall 2024)
· Lecturer, Capstone Design II (Fall 2024)
· Lecturer, Data Structure (Spring 2024)
· Lecturer, Python Programming (Spring 2024)
· Lecturer, Career Planning I (Spring 2024)
· Lecturer, Capstone Design I (Spring 2024)

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· Injae Jeong, 20211927@edu.hanbat.ac.kr, Under, 2024
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ACADEMIC SERVICES - REVIEW AND PROGRAM COMMITTEE

[EMNLP] 2024
[ACL] 2023
[EMNLP] 2022, 2024
[NAACL] 2022, 2025
[ETRIJ] 2020, 2021, 2022, 2023, 2024
[GEM] 2022, 2023
[HCLT] 2020, 2021, 2022, 2023, 2024
[JOK] 2022, 2023, 2024, 2025

[KCC] 2022, 2023, 2024

[KSC] 2020, 2022, 2023, 2024

[TNNLS] 2022

SKILLS

Languages	Python, C++, Javascript
Frameworks	PyTorch, NumPy, Pandas, Prefect, OpenNMT, Theano