

# Chanjun Park

NATURAL LANGUAGE PROCESSING & ARTIFICIAL INTELLIGENCE LAB · KOREA UNIVERSITY

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## Research Interests

I am a MS/Ph.D student in the Department of Computer Science and Engineering at Korea University. My advisor is prof. Heuiseok Lim, and I am part of the Natural Language Processing & Artificial Intelligence Lab.

- Natural Language Processing
- Deep Learning
- Machine Translation
- Grammar Error Correction
- Simultaneous Speech Translation
- Neural Symbolic Computing

## Education

### Korea University

M.S/PH.D IN COMPUTER SCIENCE AND ENGINEERING, GPA: 4.5 / 4.5

Seoul, South Korea

Sep. 2019 - Current

- Advisor: Heuiseok Lim
- Natural Language Processing & Artificial Intelligence Lab

### Busan University of Foreign Studies(BUFS)

B.S. IN NATURAL LANGUAGE PROCESSING & CREATIVE CONVERGENCE, GPA: 4.2 / 4.5

Busan, South Korea

Mar. 2015 - Exp. Aug. 2018

- Advisor: Pummo Ryu
- Full Scholarship

## Honors & Awards

2020.10	<b>Best Paper Award, 2020</b> , HCLT 2020	South Korea
2020.05	<b>Best practices for using NIA AI training data(Korean-English Neural Machine Translation model)</b> , AI Hub	South Korea
2019.10	<b>Best Paper Award, 2019</b> , HCLT 2019	South Korea
2019.10	<b>1st Place Microsoft AI Accessibility Hackathon in Korea (Team Lead)</b> , Microsoft	South Korea
2019.03	<b>Graduate School Associate Scholarship</b> , Sungkyunkwan University	South Korea
2018.10	<b>Next Generation Information Processing NLP Competition 2018: Participation Award</b> , Next-generation information computing technology development business	South Korea
2017.06	<b>Bit Computer Excellence Award (President Award)</b> , Bit Computer	South Korea
2015-2019	<b>Full Scholarship</b> , BUFS	South Korea
2016-2017	<b>Scholarship for academic excellence</b> , Sooyoungro Church	South Korea

## Selected Publications

### Neural Spelling Correction: Translating Incorrect sentences to Correct sentences for Multimedia

Chanjun Park, Kuekyeng Kim, YeongWook Yang, Minho Kang, HeuiSeok Lim

Multimedia Tools and Applications (2020) pp. 1–18. Springer, 2020

### Ancient Korean Neural Machine Translation

Chanjun Park, Chanhee Lee, YeongWook Yang, Heuiseok Lim

IEEE Access 8 (2020) pp. 116617–116625. 2020

### Comparison of the evaluation metrics for Neural Grammatical Error Correction with Overcorrection

Chanjun Park, YeongWook Yang, Chanhee Lee, Heuiseok Lim

IEEE Access 8 (2020) pp. 106264–106272. 2020

### Decoding Strategies for Improving Low-Resource Machine Translation

Chanjun Park, Yeongwook Yang, Kinam Park, Heuiseok Lim

Electronics 9.10 (2020) p. 1562. Multidisciplinary Digital Publishing Institute, 2020

## Selected Research Experience

## COVID-19 Machine Translation Platform

RESEARCHER IN KOREA UNIV

- Neural Machine translation specialized for COVID-19 domain
- Skills: Neural Machine Translation, Pytorch, Python

Seoul, South Korea

May. 2020. - Present

## Domain Specialized Neural Machine Translation (Security)

RESEARCHER IN KOREA UNIV

- Research on Neural Machine Translation specialized for security domain
- Skills: Neural Machine Translation, Pytorch, Python
- Supported by "National Security Research Institute"
- Project Manager, Tech Lead
- Development of the latest translation model based on Transformer/BERT, AI-based Korean-English translation model suitable for the security field, and research trend of the latest AI-based translation technology research

Seoul, South Korea

May. 2020. - November.2020

## A Neural-Symbolic Model for Knowledge Acquisition and Inference Techniques

RESEARCHER IN KOREA UNIV

- Neural-Symbolic Model Research and Development
- Skills: Neural Symbolic Computing, Knowledge base, Pytorch, Python
- Supported by Ministry of Science, ICT and Future Planning

Seoul, South Korea

April. 2020. - Present

## Ancient Korean Neural Machine Translation

RESEARCHER IN KOREA UNIV

- Ancient Korean Translation Research
- Skills: Pytorch, Python, REST API, Flask, Neural Machine Translation
- Demo: <http://nlplab.iptime.org:32242/>
- Publication of research paper in IEEE Access(SCIE): <https://ieeexplore.ieee.org/document/9125904/>

Seoul, South Korea

March. 2020. - Present

## Neural Symbolic - Neural Theorem Provers(NTP)

RESEARCHER IN KOREA UNIV

- Neural Theorem Provers Research based on Neural Symbolic
- Skills: WordNet, Python, REST API, Flask, Neural Symbolic
- Demo: <http://nlplab.iptime.org:32245/>

Seoul, South Korea

January. 2020. - March.2020

## Deep Learning based Korean Spelling Correction

RESEARCHER IN KOREA UNIV

- Development of Korean spelling corrector based on deep learning
- Skills: Pytorch, Python, REST API, Flask, Neural Machine Translation
- Demo: <http://nlplab.iptime.org:32288/>
- Publication of research paper in multimedia tools and applications(SCIE): <https://link.springer.com/article/10.1007/s11042-020-09148-2>

Seoul, South Korea

June. 2019. - April.2020

## Deep Learning based Grammar Error Correction

RESEARCHER IN KOREA UNIV

- Deep learning based English grammar corrector development
- Skills: Pytorch, Python, REST API, Flask, Neural Machine Translation
- Demo: <http://nlplab.iptime.org:32292/>
- Publication of research paper in IEEE Access(SCIE): <https://ieeexplore.ieee.org/document/9102992>

Seoul, South Korea

June. 2019. - Present

## Multilingual Neural Machine Translation

RESEARCHER IN KOREA UNIV

- Deep learning based Korean-English and English-Korean, Korean-Japanese machine translator development
- Research for Parallel Corpus Filtering, Data Augmentation, Various decoding strategies
- Skills: Pytorch, Python, REST API, Flask, Neural Machine Translation
- Demo: <http://nlplab.iptime.org:32296/>
- Best practices for using NIA AI training data: <http://www.aihub.or.kr/node/4525>
- Publication of research paper in ELECTRONICS(SCIE): <https://www.mdpi.com/2079-9292/9/10/1562#cite>

Seoul, South Korea

June. 2019. - Present

## Development of English Free-talking system and grammar correction feedback system using NAO robot

RESEARCHER IN KOREA UNIV

- Team Leader
- Demo: <https://www.youtube.com/watch?v=pSBXouica-A>
- Skills: Pytorch, Python, Google Cloud Platform, REST API, Nao Toolkit

Seoul, South Korea

April. 2019. - Dec.2019

## **An AI Service to support communication and language learning for people with developmental disability**

Seoul, South Korea

RESEARCHER IN KOREA UNIV

June. 2019. - March.2020

- 1st Place Microsoft AI Accessibility Hackathon in Korea (Team Lead)
- Design of augmentative alternative communication (AAC) software for children with developmental disabilities
- Award: <https://bit.ly/2vPaZ91>
- Demo: <http://nlpplab.ipstime.org:32257/>

## **Research and development of human-inspired multiple intelligence**

Seoul, South Korea

RESEARCHER IN KOREA UNIV

September. 2019. - Present

- Human-inspired language understanding model
- Funded by the Korea Ministry of Science and ICT (MSIT)
- Site: <http://hi.ai.co.kr/>

## **Next-generation information computing technology development business**

Seoul, South Korea

RESEARCHER IN KOREA UNIV

September. 2019. - Present

- Development of Core Application Techniques for Korean Intelligent Systems
- Research and development of Korean natural language processing core technology

## **Core technology development of the real-time simultaneous speech translation based on knowledge enhancement**

Seoul, South Korea

RESEARCHER IN SYSTRAN

June. 2018. - July.2019

- Collaboration with the Korea Electronics and Telecommunications Research Institute (ETRI) Language Intelligence Research Group
- Director: Dr. Young-Gil Kim (ETRI)
- 3rd year: Real-time lecture interpretation solution development
- 4th year: Busan University of Foreign Studies Field Group Test (FGT) progress and software maintenance
- Skills: JAVA, JAVA FX, Kaldi

## **Neural Machine Translation service for SK Telecom's in-house education program**

Seoul, South Korea

RESEARCHER IN SYSTRAN

April. 2019. - April.2019

- Development of automation software to provide translation service to SK Telecom's in-house education program
- Skills: Python

## **LCloud-API Platform Service Development**

Seoul, South Korea

RESEARCHER IN SYSTRAN

January. 2019. - June.2019

- Planning and development of natural language processing API Platform Service
- Gravitree IO-based platform design, planning, marketing materials production, strategy establishment
- REST API management using Swagger
- Transcription API, Translation API, Address Correction API, Speaker Verification API
- Learned Microservices architecture(MSA),IT Infrastructure
- Skills: Gravitree IO, Microservices architecture(MSA), IT Infrastructure, Mockup, Marketing, Strategic Planning, Technology management, Amazon AWS

## **Speech recognition transcription tool development**

Seoul, South Korea

RESEARCHER IN SYSTRAN

January. 2019. - July. 2019

- Development and maintenance of speech recognition transcription tool, modification and addition of various functions
- Skills: Front End, Spring Boot, Flask, AJAX, MySQL, Kaldi,

## **CJ Logistics Speech Recognition Agent**

Seoul, South Korea

RESEARCHER IN SYSTRAN

Aug. 2018. - July. 2019

- CJ Logistics artificial intelligence (AI) virtual assistant project
- Skills: Quality Assurance, Quality control, Mockup, Strategic Planning, Kaldi

## **Automatic subtitle generation platform service development and planning**

Seoul, South Korea

RESEARCHER IN SYSTRAN

June. 2018. - June.2019

- Development and maintenance of automatic subtitle generation platform
- Establish platform service strategies such as B2B and B2C
- Various company contacts and SWOT analysis
- Skills: JAVA, JAVA FX, Kaldi, Mockup, Strategic Planning, Technology management, Marketing

## **Planning of English speaking evaluation platform service**

Seoul, South Korea

RESEARCHER IN SYSTRAN

June. 2018. - December.2018

- Establishing a service strategy using English speaking evaluation technology
- English speaking evaluation technology Q.A & Q.C
- Skills: Quality Assurance, Quality control, Mockup, Strategic Planning, Technology management, Marketing

## Customer-specific recognizer service platform service planning

RESEARCHER IN SYSTRAN

- Customer-specific recognizer service app service design
- Establish platform service strategies such as B2B and B2C
- Skills: Mockup, Marketing, Strategic Planning, Technology management

Seoul, South Korea

June. 2018. - April. 2018

## Speech Recognition Research

RESEARCHER IN SYSTRAN

- Research for Automatic Speech Recognition Technology
- Acoustic Model, Language Model
- Speaker Verification
- Kaldi
- English speaking evaluation
- Real-time speech recognition system
- Skills: Kaldi

Seoul, South Korea

Aug. 2018. - July. 2019

## Neural Machine Translation Research

RESEARCHER IN SYSTRAN

- Research for Neural Machine Translation
- Skills: OpenNMT Tensorflow, OpenNMT Pytorch

Seoul, South Korea

Aug. 2018. - July. 2019

## Development of multilingual word translation service based on Korean semantics analysis for multicultural family

RESEARCHER IN BUFS

- Han-Tong-E: Multilingual Word Translation Service based on Word Semantic Analysis
- Collaboration with Professor Ok Cheol-young's laboratory at Ulsan University
- Project homepage development
- In-depth understanding of Utagger and seminar on WSD
- Build project-related data and conduct surveys
- Project Page: <https://bufsconv.blogspot.kr/>
- Funded by National Research Foundation of Korea(NRF)

Seoul, South Korea

Sep. 2016. - June. 2018

## Establishment of Gold Standard language resource bank for Korean machine learning and evaluation(Next-generation information computing technology development business)

RESEARCHER IN BUFS

- For the purpose of developing Korean Natural Language Toolkit
- Development of automatic Korean word spacing and Korean compound noun decomposer
- Skills: Python

Seoul, South Korea

Sep. 2017. - June. 2018

## Local industry development project in connection with public institutions

RESEARCHER IN BUFS

- ICT VAEMS: Vertical Aquaculture Energy Management
- Funded by the Korea Institute for Advancement of Technology(KIAT)

Seoul, South Korea

Sep. 2016. - Aug. 2017

## Basic Research on Semantic Frame Generation for Short Questions (ExoBrain)

RESEARCHER IN BUFS

- Exobrain Project

Seoul, South Korea

Oct. 2015. - Feb. 2016

## Professional Experience

### SYSTRAN, Automatic Speech Recognition(ASR) Team

Seoul, South Korea

RESEARCH ENGINEER

Sep. 2018 - July. 2019

- Core technology development of the real-time simultaneous speech translation based on knowledge enhancement (ETRI)
- Participated in NTT Docomo speech Recognition Solution Project
- Participated in CJ Logistics speech recognition agent development project
- Participated in Samsung SDS speech recognition project
- Speech recognition service planning and development (Real-time lecture interpretation, Automatic subtitle generation service, English speaking evaluation, Customer-specific recognizer service, Web RTC-based Real-time video interpretation)
- Deep learning based speech recognition research (Acoustic Model, Language Model Training)
- Machine Translation research
- IaaS and PaaS service planning, API Platform service operation planning, B2B B2C planning and development
- Micro Service Architecture Design and Successful API Platform Service Launching Experience (LCloud)
- Governmental project proposal experience
- Reason for leaving: Graduate school

### SYSTRAN, Automatic Speech Recognition(ASR) Team

Seoul, South Korea

RESEARCH INTERN

June. 2018 - August. 2018

- Participated a project "Core technology development of the real-time simultaneous speech translation based on knowledge enhancement (ETRI)"
- Developed Simultaneous Speech Translation (implemented using JAVA, Python and Kaldi)

## Skills

<b>Programming</b>	JAVA, Python, C / C++
<b>Machine Learning &amp; Deep Learning</b>	Pytorch, Keras, Tensorflow, OpenNMT, Kaldi
<b>Natural Language Processing</b>	Machine Translation, Speech Recognition, Neuro-Symbolic Computing
<b>Full Stack</b>	Html, CSS, Javascript, Java FX, Oracle, MySQL, Spring Boot, VertX, AWS
<b>Strategy &amp; Planning</b>	API Platform Service, Platform Service Planning, Gravitee IO, PaaS, IaaS, Q.A, Q.C, Mockup, Swagger
<b>Etc</b>	MS Office, Redmine, Linux, Docker, Web RTC, Latex
<b>Language Skills</b>	Korean, English, Japanese, Thai, Myanmar

## Patents

2019.12	<b>Device and method for correcting Korean spelling</b> , Apply for a patent	South Korea
2020.09	<b>APPARATUS AND METHOD FOR OUTPUTTING IMAGE CORRESPONDING TO LANGUAGE</b> , Apply for a patent	South Korea
2020.09	<b>METHOD OF TRANSLATING ANCIENT KOREAN USING MACHINE TRANSLATION</b> , Apply for a patent	South Korea
2020.09	<b>Correction performance evaluation metrics of neural network machine translation and method of constructing the same</b> , Apply for a patent	South Korea
2020.09	<b>METHOD OF BUILDING TRAINING DATA OF MACHINE TRANSLATION</b> , Apply for a patent	South Korea

## Demo

2019.12	<b>Deep Learning based English Grammar Error Correction</b> , <a href="http://nlplab.iptime.org:32292/">http://nlplab.iptime.org:32292/</a>	South Korea
2019.12	<b>Deep Learning based Korean Spelling Correction</b> , <a href="http://nlplab.iptime.org:32288/">http://nlplab.iptime.org:32288/</a>	South Korea
2020.01	<b>Korea University Neural Machine Translation Platform</b> , <a href="http://nlplab.iptime.org:32296/">http://nlplab.iptime.org:32296/</a>	South Korea
2020.02	<b>Neural Symbolic Inference</b> , <a href="http://nlplab.iptime.org:32245/">http://nlplab.iptime.org:32245/</a>	South Korea
2020.02	<b>English Free Talking and Grammar Error Correction Feed Back System using NAO Robot</b> , <a href="https://www.youtube.com/watch?v=Rl6dG_4cnFk">https://www.youtube.com/watch?v=Rl6dG_4cnFk</a>	South Korea
2020.03	<b>Korean Ancient Neural Machine Translation Platform</b> , <a href="http://nlplab.iptime.org:32242/">http://nlplab.iptime.org:32242/</a>	South Korea
2020.03	<b>PicTalky: Text to Pictogram Demo for Children with Developmental Disabilities</b> , <a href="http://nlplab.iptime.org:32257/">http://nlplab.iptime.org:32257/</a>	South Korea
2020.05	<b>COVID-19 Machine Translation Platform</b> , <a href="http://nlplab.iptime.org:32250/">http://nlplab.iptime.org:32250/</a>	South Korea
2020.07	<b>Ancient Korean Translation &amp; Machine Reading Comprehension with NAO</b> , <a href="https://www.youtube.com/watch?v=nXBZe-t9a-4&amp;t=8s">https://www.youtube.com/watch?v=nXBZe-t9a-4&amp;t=8s</a>	South Korea

## Invited Talk & Teaching Experience

## Korea University

HEAD TEACHING ASSISTANT

- (BDC101) Introduction to Natural Language Processing in Big Data
- (DFE610) Natural Language Processing for Digital Finance Engineering

South Korea

Autumn 2020

## Korea University

TEACHING ASSISTANT

- (COSE461) Natural Language Processing
- (DFC615) Artificial Intelligence and Natural Language Processing
- Lecture materials: <https://github.com/Parkchanjun/KU-NLP-2020-1>

South Korea

Spring 2020

## LLsoLLu

PRESENTER

- Latest natural language processing trends
- Language Representation, Neural Symbolic Computing
- Invited by LLsoLLu Global Strategy and Planning Team

South Korea

March. 2020

## NC SOFT

PRESENTER

- Technology Transfer Seminar
- Korean Spelling Corrector Using Automatic Noise Generation Methodology
- Invited by NC SOFT Language AI Team

South Korea

February. 2020

## Dongguk University

PRESENTER

- A.I - NLP - MT for Liberal Arts
- Introduction to Natural Language Processing, RBMT, SMT, NMT, OpenNMT
- Invited by Dongguk University, Department of English Language and Literature professor. Myung-Kwan Park
- Lecture materials: [https://github.com/Parkchanjun/Dongguk\\_AI\\_NLP\\_MachineTranslation](https://github.com/Parkchanjun/Dongguk_AI_NLP_MachineTranslation)

South Korea

January. 2020

## SKC

INSTRUCTOR

- Deep Learning and Natural Language Processing Course
- Introduction of Text Preprocessing and NLP for Linguistics
- Introduction of Word Embedding
- Introduction of Machine Translation
- Lecture materials(Text Preprocessing): [https://github.com/Parkchanjun/SKC\\_Text\\_Preprocessing](https://github.com/Parkchanjun/SKC_Text_Preprocessing)
- Lecture materials(Introduction of Machine Translation): [https://github.com/Parkchanjun/SKC\\_MachineTranslation](https://github.com/Parkchanjun/SKC_MachineTranslation)

South Korea

Oct. 2019 - Nov. 2019

## Naver Tech Talk

PRESENTER

- Machine Translation for Everyone
- Invited by Sung Kim who are the Head of Naver Clova A.I
- Lecture videos: <https://tv.naver.com/v/9906991>

South Korea

Aug. 2019

## SK T Academy

INSTRUCTOR

- Machine Translation for Everyone
- Invited by SK Planet
- Introduction to Natural Language Processing, RBMT, SMT, NMT, OpenNMT
- Lecture videos: <https://tacademy.skplanet.com/live/player/onlineLectureDetail.action?seq=165>

South Korea

Aug. 2019

## Sooyoungro Church

INSTRUCTOR

- Sooyoungro Church Dream Bowl School Instructor (Free Service)
- Basic English Grammar and English Conversation Education

South Korea

Aug. 2017 - Dec. 2017

## Korea Press Foundation

INSTRUCTOR

- Reading mentoring

South Korea

Aug. 2015 - Dec. 2015

# All Publications

## INTERNATIONAL JOURNAL

### Neural Spelling Correction: Translating Incorrect sentences to Correct sentences for Multimedia

Chanjun Park, Kuekyeng Kim, YeongWook Yang, Minho Kang, HeuiSeok Lim

Multimedia Tools and Applications (2020) pp. 1–18. Springer, 2020

## **Ancient Korean Neural Machine Translation**

**Chanjun Park**, Chanhee Lee, YeongWook Yang, Heuiseok Lim

*IEEE Access* 8 (2020) pp. 116617–116625. 2020

## **Comparison of the evaluation metrics for Neural Grammatical Error Correction with Overcorrection**

**Chanjun Park**, YeongWook Yang, Chanhee Lee, Heuiseok Lim

*IEEE Access* 8 (2020) pp. 106264–106272. 2020

## **Decoding Strategies for Improving Low-Resource Machine Translation**

**Chanjun Park**, Yeongwook Yang, Kinam Park, Heuiseok Lim

*Electronics* 9.10 (2020) p. 1562. Multidisciplinary Digital Publishing Institute, 2020

## **INTERNATIONAL CONFERENCE**

### **PicTalky: Deep learning-based speech therapy platform for developmental disabilities**

**Chanjun Park**, Yanghee Kim, Yoonna Jang, Umadevi G.R, HeuiSeok Lim

*The International Conference on Big data, IoT, and Cloud Computing*, 2020

### **Domain-specialize Neural Machine Translation Methodology**

**Chanjun Park**, HeuiSeok Lim

*International conference on Interdisciplinary research on Computer Science, Psychology, and Education*, 2020

### **Toward High Quality Parallel Corpus Using Monolingual Corpus**

**Chanjun Park**, Youngdae Oh, Jongkeun Choi, Dongpil Kim, HeuiSeok Lim

*The 10th International Conference on Convergence Technology*, 2020

### **Data Augmentation Method for Korean Neural Machine Translation**

**Chanjun Park**, Kinam Park, HeuiSeok Lim

*INTERNATIONAL CONFERENCE ON INFORMATION, SYSTEM AND CONVERGENCE APPLICATIONS*, 2020

### **Self- Supervised Korean Spelling Correction via Denoising Transformer**

**Chanjun Park**, Sungjin Park, HeuiSeok Lim

*INTERNATIONAL CONFERENCE ON INFORMATION, SYSTEM AND CONVERGENCE APPLICATIONS*, 2020

### **Can artificial intelligence translate the Annals of the Joseon Dynasty ?**

**Chanjun Park**, Sungjin Park, Kinam Park, Jaechoon Jo, HeuiSeok Lim

*The 10th International Conference on Convergence Technology*, 2020

### **Design Neural Machine Translation Model Combining External Symbolic Knowledge in translation task**

Sugyeong Eo, **Chanjun Park**, HeuiSeok Lim

*International conference on Interdisciplinary research on Computer Science, Psychology, and Education*, 2020

### **Free Talking NAO Robot for Children**

**Chanjun Park**, Jaekue Choi, Sungjin Park, Yanghee Kim, HeuiSeok Lim

*International conference on Interdisciplinary research on Computer Science, Psychology, and Education*, 2019

### **Improved Machine Translation Performance Using Two Stage Subword Tokenization**

**Chanjun Park**, Sora Choi, HeuiSeok Lim

*International conference on Interdisciplinary research on Computer Science, Psychology, and Education*, 2019

### **Quality before Quantity: Improved Machine Translation performance using parallel corpus filtering**

**Chanjun Park**, Seunggyu Han, HeuiSeok Lim

*International conference on Interdisciplinary research on Computer Science, Psychology, and Education*, 2019

### **Improved Machine Translation Performance Using Relative Ratio of Original and Synthetic Corpus**

**Chanjun Park**, Jang Mook Kang

*International conference on Interdisciplinary research on Computer Science, Psychology, and Education*, 2019

## **DOMESTIC JOURNAL**

### **Neural Machine translation specialized for Coronavirus Disease-19(COVID-19)**

**Chanjun Park**, Kyeonghee Kim, Kinam Park, HeuiSeok Lim

*Journal of the Korea Convergence Society* 00.0 (2020) pp. 00–00. 2020

### **An AI Service to support communication and language learning for people with developmental disability**

**Chanjun Park**, Yanghee Kim, Yoonna Jang, Umadevi G.R, HeuiSeok Lim

*Journal of the Korea Convergence Society* 11.6 (2020) pp. 51–57. 2020

### **Automatic Post Editing Research**

**Chanjun Park**, HeuiSeok Lim

*Journal of the Korea Convergence Society* 11.5 (2020) pp. 1–8. 2020

### **A Study on the Performance Improvement of Machine Translation Using Public Korean-English Parallel Corpus**

Chanjun Park, HeuiSeok Lim

*Journal of Digital Convergence* 18.6 (2020) pp. 271–277. 2020

## **DOMESTIC CONFERENCE**

### **Quality, not Quantity? : Effect of parallel corpus quantity and quality on Neural Machine Translation**

**Chanjun Park**, Yeonsu Lee, Chanhee Lee, HeuiSeok Lim

*The 32st Annual Conference on Human Cognitive Language Technology*, 2020

### **Alleviation of Overcorrection Problem in Neural Korean Spelling Correction**

**Chanjun Park**, Yeonsu Lee, Kisu Yang, HeuiSeok Lim

*The 32st Annual Conference on Human Cognitive Language Technology, 2020*

### **Design Neural Machine Translation Model Combining External Symbolic Knowledge**

Sugyeong Eo, **Chanjun Park**, HeuiSeok Lim

*The 32st Annual Conference on Human Cognitive Language Technology, 2020*

### **Cross-Lingual Transfer of Pretrained Transformers to Resource-Scarce Languages (Best Paper Award)**

Chanhee Lee, **Chanjun Park**, Gyeongmin Kim, Dongsuk Oh, HeuiSeok Lim

*The 32st Annual Conference on Human Cognitive Language Technology, 2020*

### **MMA: Multi-modal Message Aggregation for Korean VQA**

Sungjin Park, **Chanjun Park**, Jaehyung Seo, HeuiSeok Lim

*The 32st Annual Conference on Human Cognitive Language Technology, 2020*

### **Korean Spell Correction based on Denoising Transformer**

**Chanjun Park**, Sol Jeong, Kisu Yang, Sumi Lee, Jaechoon Joe, HeuiSeok Lim

*The 31st Annual Conference on Human Cognitive Language Technology, 2019*

### **Parallel Corpus Filtering and Korean-Optimized Subword Tokenization for Machine Translation**

**Chanjun Park**, Gyeongmin Kim, HeuiSeok Lim

*The 31st Annual Conference on Human Cognitive Language Technology, 2019*

### **Optimization of Data Augmentation Techniques in Neural Machine Translation**

**Chanjun Park**, Kuekyeng Kim, HeuiSeok Lim

*The 31st Annual Conference on Human Cognitive Language Technology, 2019*

### **Comparative Study of Sentiment Analysis Model based on Korean Linguistic Characteristics**

Gyeongmin Kim, **Chanjun Park**, HeuiSeok Lim

*The 31st Annual Conference on Human Cognitive Language Technology, 2019*

### **Cross-Validated Ensemble Methods in Natural Language Inference (Best Paper Award)**

Kisu Yang, Taesun Whang, Dongsuk Oh, **Chanjun Park**, HeuiSeok Lim

*The 31st Annual Conference on Human Cognitive Language Technology, 2019*

### **Korean Spacing Module using Eojeol dictionary and Morpheme dictionary**

**Chanjun Park**, Jin-hyuk Choi, Pummo Ryu

*Korea Software Congress 2018, 2018*

### **Knowledge-enhancing Real-time Lecture interpreter service Development**

**Chanjun Park**, Minho Kang, Byunggun Park, Suntae Kim, Myeongjin Hwang, Dongpil Kim, Young-kil Kim

*Korea Software Congress 2018, 2018*

### **Voice recognition performance improvement using TTS system in address recognition system**

**Chanjun Park**, Suntae Kim, Minho Kang, Myeongjin Hwang, Byunggun Park, Yeonsu Kim

*Korea Software Congress 2018, 2018*

### **Improved speech recognition performance in business meeting environments using domain-specific method**

**Chanjun Park**, Suntae Kim, Minho Kang, Byunggun Park, Myeongjin Hwang, Yeonsu Kim

*Korea Software Congress 2018, 2018*

### **Spam/Ham Classification using Ensemble Technique of Machine Learning Algorithms**

**Chanjun Park**, Pummo Ryu

*Korea Computer Congress 2018, 2018*

### **Two-Stage Korea Compound Noun Decomposer**

**Chanjun Park**, Pummo Ryu

*The 30st Annual Conference on Human Cognitive Language Technology, 2018*

### **Dictionary based Compound Noun Decomposer using Resource extension**

**Chanjun Park**, Hyejin Won, Pummo Ryu

*Korea Computer Congress 2018, 2018*

## **BOOK CHAPTERS**

### **Natural Language Processing Bible**

Heuiseok Lim, **Korea University NLP AI Lab**

Human Science, <https://www.aladin.co.kr/shop/wproduct.asp?partner=rss&ISBN=K412637214>, 2020



## Operate Naver's natural language processing blog

BLOGGER

- URL: <https://blog.naver.com/bcj1210>
- Linguistics for natural language processing
- Natural Language Processing (NLP)
- Machine Translation for Everyone
- Business, strategy, and planning for everyone
- Natural language processing with NLTK
- Software engineering
- Today's CCM

South Korea

2016.Dec-Present

## OpenNMT Forum Members

MEMBERS

- Active as OpenNMT Forum Members
- Develop and share OpenNMT Pytorch, Tensorflow, Library Tutorial

South Korea

2019.July-2019.July

## ETRI's machine translation quality evaluator

ESTIMATOR

- Quality evaluation of machine translation hosted by ETRI

South Korea

2019.October-2019.December

## Completion of basic curriculum for natural language processing and language intelligence

STUDENT

- Korea University Human-Inspired AI & Computing Research Center

South Korea

2019.July-2019.July

## Completed the natural language processing tutorial (2016-2019)

STUDENT

- Special Interest Group of Human and Cognitive Language Technology

South Korea

2016 - 2019

## Reporter, Korea Electronics and Telecommunications Research Institute (ETRI)

REPORTER

- Served as 3rd and 4th reporters at the Korea Electronics and Telecommunications Research Institute

South Korea

2016.Feb-2018.Feb

## Flitto Supporters

SUPPORTERS

- The first plito supporters

South Korea

2017.Dec-2017.Dec

## Journalist of the Ministry of Science and ICT

REPORTER

- 8 articles published
- Visit Exobrain Quiz Show
- URL: <https://blog.naver.com/bcj1210/221147196551>

South Korea

2016.Feb-2017.Feb

## Planning a video lecture for Natural Language Processing Basic at BUFS

PLANNER

- URL: <https://bit.ly/2NmFJV1>

South Korea

2016.July-2016.July

## BIT Computer Advanced Course Completion

STUDENT

- Bet Advanced Course Completion and Bet President Award
- Bit project level 2 license
- Development of intelligent English learning APP

South Korea

2016.January-2016.August

## BIT Computer Short Course Completion

STUDENT

- Short-term course completion (C, JAVA, Data Structure)

South Korea

2015.June-2015.August

## Courses related to natural language processing and computer engineering

South Korea

### STUDENT

2015-Present

- Computer Programming Basics 1 (C Language) (A+)
- Linguistics basics (A+)
- Basic language processing (A+)
- Computer and Information Society (A+)
- Introduction to computers (A+)
- Computer architecture (A+)
- Data structure (A)
- Concepts of programming language (A+)
- Operating system (A+)
- Database (A+)
- Natural language processing (BUFS) (A+)
- Advanced computer programming (System Programming, Machine Learning) (A+)
- Software Engineering (A+)
- Natural Language processing project (A+)
- Information extraction and text mining (A+)
- Machine learning application (A)
- Cognitive basis of linguistics (A+)
- Natural language processing (KU) (A+)