

ARUM PARK

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EXPERIENCE & SKILL

- Over 5 years of experience in research projects optimizing Korean-to-English Machine Translation (MT) systems (see **RESEARCH PROJECTS** on page 4)
- Implementing a Korean null subject resolution system using heuristic rules and Machine Learning (ML) ([Rule-based null subject resolution system](#)) – Jupyter notebook & Python
([ML for the classification problem between anaphoric and non-anaphoric](#)) – Scikit-learn
- Customizing language models for Multilingual Neural Machine Translation (NMT) as a Machine Translation Specialist Trainee at Electronic Arts in Köln
(see **PROFESSIONAL EXPERIENCE** on page 2)
- NLP challenge: JSGF development
([JSGF development for English and Korean](#))
- Supervised learning for classification problems using Weka & Scikit-learn
- Sharing knowledge about ML
([posting example](#))
([posting example code](#)) – Markdown & HTML script & Version control with Git & Visual Studio Code
- Sharing knowledge about the Korean language on YouTube
([Learn authentic Korean for 10 min.](#))
 - Using a self-built Korean transcriber
([Korean Transcriber based on McCune-Reischauer Romanization System](#))
 - Using Text-to-Speech (TTS) AI
- Google Cloud Speech-to-Text (STT) & TTS AI
([STT test](#)), ([TTS test](#))
- Building annotated data
 - Korean anaphora with MMAX2 Tool
 - Usages of Pronouns in chat corpus with Python & Excel
 - Usages of Emoticons in chat corpus with Python & Excel
- Data preprocessing
 - Converting JSON file to CSV file ([code example](#))
 - Generating CSV file with conditions ([code example](#))
- Command Line & grep & sed / SQL exercise for data analysis / Regular expression for data search
- Data visualization using Microsoft Excel & Word or Python libraries such as matplotlib & seaborn
- Coursera course
 - „Machine Translation” from Karlsruhe Institute Technology – successfully completed

LANGUAGE SKILLS

- Korean (native)
- English (C1)
- German (C1)

PROFESSIONAL EXPERIENCE

31.05.2022 – 04.11.2022

Machine Translation Specialist Trainee¹ *Localization Team at Electronic Arts (EA), Köln*

- Goal: Customizing language models for NMT
- Responsibilities:
 - Supported the Machine Translation Team with executing EA's MT strategy
 - Analyzed MT output for quality improvements
 - Cleaned up TMs and fed glossaries into MT engines
 - Tested and documented the results of output of trained MT engines
 - Reviewed human post-edited output to produce high-quality training corpus for MT engines
 - Assisted with collecting feedback from vendors, preparing data for training engines, normalizing glossaries for automatic scoring and with conducting general research on technology

2019 – 2021

Korean Teacher

Koreanische Schule, Düsseldorf

- Role:

Taught German native speakers and developed a customized curriculum to explain specific Korean language phenomena that students struggled with due to language differences

¹ A reference letter from Cristina Anselmi (MT & Translation Technology Lead at EA) is included at the bottom of this CV.

EDUCATION

2016.10 – 2024.07

Doctor Degree in Linguistics (Linguistic Data Science Lab)

Ruhr Universität Bochum, GERMANY

- Doctoral Thesis
- „Entwicklung eines Nullsubjektresolutionssystems im Koreanischen: Eine computer- und korpusbasierte Untersuchung der Parameter zur Rekonstruierbarkeit von Nullsubjekten“
- Implementing heuristic rules based on morpho-syntactic clues in Korean to assign the referents of the Korean null subjects and integrating them as a null subject resolution system
- All prerequisite courses - bestanden
- WS 16/17 Seminar: *CL-Propädeutikum*
- WS 16/17 Proseminar: *Forschungsseminar: Computational Pragmatics*
- WS 16/17 Hauptseminar: *Probabilistische Pragmatik*
- WS 16/17 Hauptseminar: *Syntax in der generativen Grammatik*
- WS 19/20 Proseminar: *Tools für den linguistischen Alltag: Automatisierung, Reproduzierbarkeit und Kollaboration*
- DFG Project from 2023: „Praktiken der Personenreferenz“
- DFG Project in 2019: „Elektronische Kurznachrichtenkommunikation im Deutschen und Koreanischen - Konvergenzen und Divergenzen sprachlicher, stilistischer und interaktionaler Strukturen“
- Scholarship from DAAD in 2019
- A Third-party funded project: „PAJAKO: Partnerschaft mit Japan und Korea“

2013 – 2016

Doctoral Course Completion in German Linguistics

Institute of German Language and Literature, Sungkyunkwan University, KOREA

- Cumulative GPA: 4.5/4.5
- Global PhD Fellowship for two years
- ESSLLI 2016 (European Summer School in Logic, Language and Information) with scholarship in Bolzano-Bozen, Italy
- ESSLLI 2015 in Barcelona, Spain

2010 – 2013

M.A degree in German Linguistics

Institute of German Language and Literature, Sungkyunkwan University, KOREA

- Master Thesis
 - „Untersuchung der mehrdeutig adnominalen Konstruktion bei der Übersetzung von technischen Dokumentationen von Smartphones: in Hinblick auf kontrollierte Sprache“
 - Proposing Korean controlled language to disambiguate the ambiguous adnominal construction found in smartphone manuals
- Cumulative GPA: 4.44/4.5

2006 – 2010

B.A Degree in German Linguistics and Literature

Institute of German Language and Literature, Sungkyunkwan University, Korea

- Cumulative GPA: 4.20/4.5
- Exchange Student Program for WS 07/08 at Heidelberg University, Germany
- Global Leader Fellowship in 2006, Korea

RESEARCH PROJECTS

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|---|--|
| 06.2012 – 02.2017 | Electronics and Telecommunications Research Institute (ETRI) |
| Developing Automatic Speech Translation System for Tourism/International Event | |
| 10.2014 – 12.2014 | SK Telecom |
| Establishing POS Tag Guidelines for Korean Spoken Corpus | |
| 06.2011 – 01.2012 | ETRI |
| Studies on the Manual/Automatic Post-Editing methods for the Korean-English MT systems | |
| 06.2010 – 01.2011 | ETRI |
| Studies on the Linguistic Properties of Korean Spoken Language for Korean-English Spoken Language MT | |
| 05.2009 – 01.2010 | ETRI |
| Context-based Disambiguation method for Connective Endings in Korean-English MT | |
| 05.2006 – 11.2007 | ETRI |
| Controlled Korean for Korean-English Academic Paper Machine Translation | |

PUBLICATION

- Arum Park & Munpyo Hong (2014)

Hybrid approach to zero subject resolution for multilingual MT: Spanish-to-Korean cases. In proceedings of the 28th Pacific Asia conference on language, information and computation, 254–261. ([paper](#))

- Arum Park & Munpyo Hong (2015a)

Subjektellipse im Koreanischen und deren Behandlung für die maschinelle Übersetzung ins deutsche. Koreanische Gesellschaft für Germanistik 56(1). 197–223. ([paper](#))

- Arum Park & Munpyo Hong (2015b)

Objektellipse im Koreanischen und deren Behandlung für die maschinelle Übersetzung ins Deutsche. Koreanische Gesellschaft für deutsche Sprache und Literatur 70. 1–21. ([paper](#))

- Arum Park, Seunghee Lim, & Munpyo Hong (2015)

Zero object resolution in Korean. In proceedings of the 29th Pacific Asia conference on language, information and computation, 439–448. ([paper](#))

- Arum Park (Under review in the journal, LINGUA)

Are Korean null subjects merely null topics?: An empirical study on parameters affecting the recoverability of null subjects

Electronic Arts

Reference

Mrs. Arum Park, born on 31. December 1987 in Seoul/ South Korea, was employed as a Machine Translation Intern in our company from 30. May 2022 until 04. November 2022.

Electronic Arts Inc. is a leading global interactive entertainment software company. EA develops, publishes, and distributes interactive software worldwide for Internet-connected consoles, personal computers, mobile phones, tablets and social networks. In fiscal 2022, EA posted GAAP net revenue of \$ 6,9 billion. EA is recognized for critically acclaimed, high-quality blockbuster franchises such as The Sims™, Madden NFL, FIFA Soccer, Need for Speed™, Battlefield™, and Mass Effect™.

Her responsibilities as Machine Translation Intern:

- Support the Machine Translation Team with the execution against EA's Machine Translation (MT) strategy
- Perform tests with different kind of content
- Analyze Machine Translation output for quality improvements, and clean up TMs, feed glossaries into MT engines
- Test and document the results of output of trained MT engines
- Review human post-edited output to produce high-quality of training corpus for MT engines
- Help with collecting feedback from vendors, preparation of data to train the engine, normalizing our glossaries for automatic score and with general research on technology

Throughout the duration of the work placement, she proved to be a diligent trainee who was very interested in the company's activities and organizational structures and knew how to successfully and rapidly apply the knowledge she acquired to her work. Worthy of special mention is her ability to quickly identify and analyze complex facts, which enabled her to obtain good results at all times. Thanks to her good perseverance and resilience to stress, she always kept a cool head even in difficult situations and could proceed constructively. Mrs. Park worked very reliably and quickly. She contributed her thoughts well when the work was being prepared and planned independently.

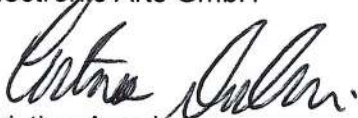
Mrs. Park always showed great commitment. We were always fully satisfied with the success of her learning and work. Because her loyalty and integrity we could always place absolute trust in her. Her project management was characterized by highly accurate planning and documentation, structured procedures and goal-oriented realization. We always valued her as reliable, dutiful and sincere colleague. Mrs. Park performed her duties in a commendable fashion. We were always fully satisfied with her performance. She convinced at all times through her always cooperative, confident and obliging appearance. Her communication behavior was always modern and open-minded and motivating for all team members.

Electronic Arts

Mrs. Park is leaving us after the end of the agreed period of the work placement in order to continue her studies. We would like to thank Mrs. Park at this point for her top performance and would wish that she finds her way back to our company after a successful end to her study.

Köln, 04. November 2022

Electronic Arts GmbH



Cristina Anselmi
Machine Translation Lead



Michael Wartha
People Partnerships Lead