KWAK, JEONGWON

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focus on now

EDUCATION

Kwangwoon University Mar 2017 - Feb 2021

Bachelor of Science in Information Convergence, Major in Data Science

- Major GPA: 4.35/4.5 Comulative GPA: 4.33/4.5 (Comulative Credit: 150/133)

WORK EXPERIENCE

Assistant Researcher

Development of general natural language processing technology based on deep learning for information extraction and sentiment analysis

Jun 2019 - Feb 2020 NRF

 Morphological analysis and sentiment analysis for feature extraction SW-centered University (realted NLP & Data Mining)

Apr 2019- Dec 2019

· Built dataset for tour reviews through crawling, preprocessed text data for feature extraction

HTD

Undergraduate Researcher

Aug 2019 - Dec 2019

Development of automatic trend of reviews detection algorithm

· Researched on the automatic detection of review trends based on sentiment analysis, n-gram

PUBLICATIONS

Journal Papers

| · Jeong, H., Kwak, J., Kim, J., Jang, J, Lee, H. "A Study on Methods of Automatic Extraction | Feb 2020 |
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| of Korean-Language Modification Relations for Sentiment Analysis" (ICAIIC 2020) | IEEE |
| · Lee, J., Kwak, J., Kim, D., Cho, S., Park, J. "Hyper-parameter Optimization for Neural Machine | Jul 2020 |
| Translation on Korean-English" (KCC 2020) | KIISE |

Patent Applications

| Kwak, J., Kim, J., Cho, J., "System for Automatically Generating Code Using Voice Recognition | Oct 2020 |
|---|----------|
| and Method for Automatically Generating Code Using the Same" | |

· Kwak, J., Jeong, H., Kim, J., "A Method of Sentimental Feature and Vocabulary Extraction" Dec 2019

PROJECT EXPERIENCE

Korean-English Neural Machine Translation

Feb 2020 - Jun 2020

Contributor, Presenter — Python

- · *Capstone Design Project*, NMT model optimized for Korean-to-English translation using transformer model based on OpenNMT(open-source framework)
- · Used Korean-English translation corpus colledted from AI-Hub, Tatoeba, adopted tokenization method optimized for each language, and performed hyper-parameter tuning experiments
- · Final model performance(BLEU): 33.55

Coding Education Program Using Speech Recognition and Deep Learning

Mar 2020 – Jun 2020

Team Leader, Contributor, Presenter — Python

- · Self-Directed Project, Developed an artificial intelligence translation system that converts Korean speech into codes
- · Combined speech recognition model with machine translation model

Smart Rowing System Application Using Management Records and Database

Contributor, Presenter — Java(Android), SQL

- · Industry-Linked Capstone Design Project, Solved the challenges provided by the company
- · Created ERD and developed the application to measure and store match records
- · Designed to be stored in the database using tablets

AWARDS SCHOLARSHIPS

| President 's Award, Translation System for Korean-English Conversation | Kwangwoon Univ. |
|--|---|
| Popularity Award, Translation System for Korean-English Conversation | Kwangwoon Univ. |
| Encouragement Award, Self-Directed Project Performance Presentation | Kwangwoon Univ. |
| Encouragement Award, 5G-based ICT Convergence Service Idea Contest | KICS |
| Excellence Award, SW Startup Idea Competition | Kwangwoon Univ. |
| Excellence Award, Capstone Design(Industry-Linked) | Kwangwoon Univ. |
| Excellence Award, The 7th Startup Idea Contest | Jeonbuk National Univ. |
| Dean's List, Academic Achievement Award (2018-2) | Kwangwoon Univ. |
| Dean's List, Academic Achievement Award (2018-1) | Kwangwoon Univ. |
| Dean's List, Academic Achievement Award (2017-1) | Kwangwoon Univ. |
| | Popularity Award, Translation System for Korean-English Conversation Encouragement Award, Self-Directed Project Performance Presentation Encouragement Award, 5G-based ICT Convergence Service Idea Contest Excellence Award, SW Startup Idea Competition Excellence Award, Capstone Design(Industry-Linked) Excellence Award, The 7th Startup Idea Contest Dean's List, Academic Achievement Award (2018-2) Dean's List, Academic Achievement Award (2018-1) |

Scholarships

| 2020-2 | National Graduate Science & Technology Scholarship (Full-tuition) | KOSAF |
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| 2020-1 | National Graduate Science & Technology Scholarship (Full-tuition) | KOSAF |
| 2019-2 | National Graduate Science & Technology Scholarship (Full-tuition) | KOSAF |
| 2019-2 | Software Excellence Scholarship | Kwangwoon Univ. |
| 2019-1 | 2nd Academic Scholarship (Half-tuition) | Kwangwoon Univ. |
| 2019-1 | Faculty Association Scholarship | Kwangwoon Univ. |
| 2018-2 | Software Excellence (A+) Scholarship | Kwangwoon Univ. |
| 2018-2 | 2nd Academic Scholarship (Half-tuition) | Kwangwoon Univ. |
| 2018-1 | 3rd Academic Scholarship (Quarterly-tuition) | Kwangwoon Univ. |
| 2017-2 | 1st Academic Scholarship (Full-tuition) | Kwangwoon Univ. |

EXTRA-CURRICULAR

Statistics Talent Donation Volunteer

2019 University Student Statistics Education Talent Donation Group 5th

· Taught statistics to elementary, middle and high schools students

Vice-President of College

Vice-President of Kwangwoon University's 2nd College of Software Convergence

· Planned various college events including software related events

Machine/Deep Learning Group Study

Machine Learning and Deep Learning based on Tensorflow Studies during the Vacation

· Studied the theory and practice of machine learning and deep learning and reviewed papers

Jan 2018 - Dec 2018

Nov 2018 - Feb 2019

Kwangwoon Univ.

Apr 2019 – *Nov* 2019

Statistics Korea, KOSTAT

Kwangwoon Univ.

TECHNICAL SKILLS

Languages Python, C, JAVA, R, SQL

Libraries Pytorch, Tensorflow, Numpy, Pandas, Matplotlib