

# KWAK, JEONGWON

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## EDUCATION

### Kwangwoon University

Mar 2017 – Feb 2021

*Bachelor of Science in Information Convergence, Major in Data Science*

- Major GPA : 4.35/4.5 Cumulative GPA : 4.33/4.5 (Cumulative Credits : 150/133)

## PROJECT EXPERIENCE

### End-to-End Translation System for Korean-English Conversation

Feb 2020 – Jun 2020

*Developer, Presenter*

- **Capstone Design Project**, Implemented an artificial intelligence interpretation system with a natural conversation
- To improve the performance of each speech recognition and text translation
- The ASR and NMT predictions were close to the Ground Truth
- Won the Popularity Award and the First Place(1st).

### Automatic Code Generation Program through Speech Recognition

Mar 2020 – Jun 2020

*Team Leader, Developer, Presenter*

- **Self-Directed Project**, Developed an artificial intelligence translation system that converts Korean speech into python codes for people with disabilities
- Implemented the education program that automatically generates code using speech recognition

### Smart System Application Using Management Records and Database

Jun 2019 – Aug 2019

*Developer, Presenter*

- **Industry-Linked Capstone Design Project**, Solved the challenges provided by the company
- Created ERD and developed an application for recording measurements in real time
- Designed to be stored in the database using tablets

## 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 (related NLP & Data Mining)*

Apr 2019 – Dec 2019

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

IITP

### Undergraduate Researcher

Aug 2019 – Dec 2019

*Development of automatic trend of reviews detection algorithm*

- Researched to develop an algorithm related to detecting trends

## PUBLICATIONS

### Journal Papers

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

Feb 2020

IEEE

Jul 2020

KIISE

### Patent Applications

- Kwak, J., Kim, J., Cho, J., "System for Automatically Generating Code Using Voice Recognition and Method for Automatically Generating Code Using the Same"
- Kwak, J., Jeong, H., Kim, J., "A Method of Sentimental Feature and Vocabulary Extraction"

Oct 2020

Dec 2019

## AWARDS SCHOLARSHIPS

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### Awards

2020.11	<b>President's Award</b> , Translation System for Korean-English Conversation	Kwangwoon Univ.
2020.11	<b>Popularity Award</b> , Translation System for Korean-English Conversation	Kwangwoon Univ.
2020.10	<b>Dean's List</b> , Academic Excellence Award	Kwangwoon Univ.
2020.06	<b>Encouragement Award</b> , Self-Directed Project Performance Presentation	Kwangwoon Univ.
2020.02	<b>Encouragement Award</b> , 5G-based ICT Convergence Service Idea Contest	KICS
2019.09	<b>Excellence Award</b> , SW Startup Idea Competition	Kwangwoon Univ.
2019.08	<b>Excellence Award</b> , Capstone Design(Industry-Linked)	Kwangwoon Univ.
2019.06	<b>Excellence Award</b> , The 7th Startup Idea Contest	Jeonbuk National Univ.
2019.04	<b>Dean's List</b> , Academic Excellence Award	Kwangwoon Univ.
2018.09	<b>Dean's List</b> , Academic Excellence Award	Kwangwoon Univ.
2017.09	<b>Dean's List</b> , Academic Excellence Award	Kwangwoon Univ.

### Scholarships

2020-02	National Graduate Science & Technology Scholarship (Full tuition)	KOSAF
2020-01	National Graduate Science & Technology Scholarship (Full tuition)	KOSAF
2019-02	National Graduate Science & Technology Scholarship (Full tuition)	KOSAF
2019-02	Software Excellence Scholarship	Kwangwoon Univ.
2019-01	2nd Academic Scholarship (Half tuition)	Kwangwoon Univ.
2019-01	Faculty Association Scholarship	Kwangwoon Univ.
2018-02	Software Excellence (A+) Scholarship	Kwangwoon Univ.
2018-02	2nd Academic Scholarship (Half tuition)	Kwangwoon Univ.
2018-01	3rd Academic Scholarship (Quarterly tuition)	Kwangwoon Univ.
2017-02	1st Academic Scholarship (Full tuition)	Kwangwoon Univ.

## EXTRA-CURRICULAR

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### Trained Problem-Solving AI Technology Development (KAIST)

25th Jan 2021 – 29th Jan 2021

2021 NLP(with BERT) and Related Techniques Practice

Smart Energy AI Research Center

- Learned the contextual representations and downstream tasks and the latest models (Big Bird, MASS, PALM, etc.)

### Statistics Talent Donation Volunteer

Apr 2019 – Nov 2019

2019 University Student Statistics Education Talent Donation 5th Group

Statistics Korea, KOSTAT

- Taught statistics to elementary, middle and high school students

### Vice-President of College

Jan 2018 – Dec 2018

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

Kwangwoon Univ.

- Planned various college events including software related events

### Machine/Deep Learning Group Study

Nov 2018 – Feb 2019

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

Kwangwoon Univ.

- Studied the theory and practice of machine learning and deep learning and reviewed papers
- Explored the principles of Mathematical structure for deep learning

## TECHNICAL SKILLS

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<b>Languages</b>	Python, C, JAVA, R, MySQL
<b>Libraries</b>	Pytorch, Tensorflow, Numpy, Pandas, Matplotlib
<b>Tools</b>	Neo4j, Spark, Tableau