# Byung-hyun Kim

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### https://github.com/byunghyun23

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### **EDUCATION**

#### Master of Science:

Hanyang University, Seoul, South Korea (Mar. 2021 – Feb. 2023)

- Major in Computer Science.
- Advisor: Prof. In-whee Joe.
- 3.75/4.50 GPA.

#### Bachelor of Science:

Seokyeong University, Seoul, South Korea (Mar. 2014 – Feb. 2020)

- Major in Computer Engineering.
- 3.94/4.50 GPA.

#### RESEARCH INTERESTS

Machine Learning, Deep learning, Computer vision, Natural language processing.

### **PUBLICATIONS**

- 1. Byunghyun Kim, Jongwha Chong, et al. "CNN-based Ensemble Model for Epileptic Seizure Detection," IEIE Summer Conference, July 1, 2021.
- 2. Byunghyun Kim, Inwhee Joe, et al. "A CNN-Attention Model for Epileptic Seizure Detection," IEEE Student Paper Contest, IEEE Seoul Section, pp. 35-37, November 12, 2021.
- 3. Byunghyun Kim, Dohyun Lee, Kyeongyuk Min, Jongwha Chong, Inwhee Joe, "Global Convolutional Neural Networks with Self-Attention for Fisheye Image Rectification," IEEE Access (SCI-E, IF=3.367), Vol. 10, pp. 129580-129587, December 12, 2022.

#### **HONORS & AWARDS**

1. Student Paper Award - IEEE Seoul Section Student Paper Contest 2021.

#### WORK EXPERIENCE

Mar. 2021 - present

### **Graduate Research Assistant**

- Mobile Network & AI Lab.
- Working with Prof. In-whee Joe.
- Working on research in deep learning.

Mar. 2018 – Feb. 2020

# **Undergraduate Research Intern**

- Programming Language Lab.
- Worked with Prof. Yang-sun Lee.
- Worked on smart contract security.

#### ADDITIONAL INFORMATION

Mar. 2021 - present

### **Computer Vision**

- Image Classification.
- Object Detection.
- Image Generation.
- Super-Resolution.
- Image Restoration.
- Image Denoising.

# **Natural Language Processing**

- Question Answering.
- Machine Translation.
- Text Classification.
- Text Generation.

### **Kaggle Competitions (As of February 21, 2023)**

- PSNR prediction for image quality assessment. **Top 8%** (6th of 82)
- Hotel booking demand. Top 18% (41th of 237)
- Store Sales Time Series Forecasting. Top 9% (50th of 597)
- Natural Language Processing with Disaster Tweets. Top 13% (106th of 886)

### **Blog**

- Sharing knowledge about programming, artificial intelligence, and etc.
- https://byunghyun23.tistory.com

# SKILLS AND CERTIFICATIONS

- Language: C/C++, Java, Python.

- Framework: TensorFlow, Pytorch, Springboot.

- Certification: Engineer Information Processing.

## **QUALIFICATIONS**

TOEIC (June. 2023)

- 745.

TOEIC Speaking (June. 2023)

- Intermediate Mid 3(130).

## **PATENTS**

Sentiment analysis by incorporating domain sentiment lexicon and word embedding.

- Applicant: Byunghyun Kim, Inwhee Joe.

- Application number: 10-2022-0066186.