Juhwan Choi

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Research Interest

Deep Learning, Natural Language Processing, Data Augmentation

Education

Chung-Ang University   Seoul, Korea
M.S. in Artificial Intelligence   Mar. 2023 - Feb. 2025 (Expected)
Advisor: Youngbin Kim

Chung-Ang University   Seoul, Korea
B.S. in Electrical and Electronics Engineering   Mar. 2017 - Feb. 2023
GPA: 3.94 / 4.5 [Certificate] [Transcript]

Research Experience

Research Assistant   Intelligent Information Processing Lab @ Chung-Ang Univ.
Advisor: Youngbin Kim   Mar. 2023 - Present

Undergraduate Research Intern   Intelligent Information Processing Lab @ Chung-Ang Univ.
Advisor: Youngbin Kim   Apr. 2021 - Feb. 2023

Undergraduate Intern   Big Data & AI Lab @ Chung-Ang Univ.
Advisor: Hohyun Park   Jan. 2021 - Feb. 2021

International Publications

SoftEDA: Rethinking Rule-Based Data Augmentation with Soft Labels [Paper] [Review] [Code]
Juhwan Choi, Kyohoon Jin, Junho Lee, Sangmin Song and Youngbin Kim
ICLR 2023 Tiny Papers
Accepted as notable work with oral presentation.

Generative Data Augmentation via Wasserstein Autoencoder for Text Classification [Paper] [Code]
Kyohoon Jin, Junho Lee, Juhwan Choi, Soojin Jang and Youngbin Kim
The 13th International Conference on ICT Convergence

Domestic Publications

소프트 라벨을 적용한 규칙 기반 텍스트 데이터 증강 기법 [Paper] [Poster]
Juhwan Choi, Junho Lee, Sangmin Song, Kyohoon Jin and Youngbin Kim
2023 Summer Annual Conference of IEIE

감정 간의 관계를 고려한 지도 대조 학습 기반 감정 인식 [Paper]
Dongje Yoo, Kyunghoon Jeon, Juhwan Choi and Youngbin Kim
2023 Summer Annual Conference of IEIE

KITE: 한국어 고의 오탈자를 활용한 텍스트 데이터 증강 방법론 [Paper]
Seunguk Yu, Juhwan Choi, Heejae Suh, Kyohoon Jin and Youngbin Kim
Proceedings of HCI Korea 2023

낯선 데이터를 활용한 과잉신뢰 완화 텍스트 증강 기법 [Paper] [Presentation]
Junho Lee, Sangmin Song, Juhwan Choi, Juhyoung Park, Kyohoon Jin and Youngbin Kim
Proceedings of HCI Korea 2023

Semantic Preservation and Natural Language Data Augmentation via Variational Autoencoder [Paper]
Yuchul Shin, Kyohoon Jin, <u>Juhwan Choi</u>, Junho Lee, Soojin Jang and Youngbin Kim
2022 Summer Annual Conference of IEIE

Variational Autoencoder기반 의미 보존 자연어 데이터 증강 기법 [Paper] [Presentation]
<u>Juhwan Choi</u>, Junho Lee, Kyohoon Jin, Yehoon Jang, Soojin Jang and Youngbin Kim
2022 Summer Annual Conference of IEIE

Research Projects

Data Annotation using LLMs	Apr. 2023 - Present
Submitted a paper - under review	

Text Data Augmentation with Soft Label	Feb. 2023 - Present
Submitted a paper and accepted to ICLR 2023 Tiny Papers.	

Interactive Text Summarization	Jan. 2023 - Present

Decision Boundary-Based Data Augmentation	Aug. 2022 - Jun. 2023
Submitted a paper - under review	

Deep Learning Seminar	Feb. 2022 - Mar. 2022
Based on Stanford CS224n and CS231n	

Text Data Augmentation using Wasserstein Autoencoder	Aug. 2021 - Jan. 2022
Related work research, Implemented text classification model.	

Implementing Image Captioning Model using Transformers	Apr. 2021 - Jun. 2021

Korean Hate Speech Detection Model	Apr. 2021 - May. 2021
Used pretrained KcELECTRA. Ranked 11/88 (in Dec. 2022) at [Kaggle competition]	

Deep Learning Seminar	Jan. 2021 - Feb. 2021
Based on CMU 11-785	

Skills

Programming Languages	**Familiar:** Python | C | C++ **Experienced:** Matlab
Libraries & Tools	Pytorch | HuggingFace | Numpy | Pandas | Git | CLI
Language Proficiency	**Native:** Korean **Fluent:** English [TOEIC 955] [TEPS 409]

Relevant Coursework

Graduate Level
Artificial Intelligence Advanced Natural Language Processing **|** Artificial Intelligence Literacy **|** Ethics and Fairness in Artificial Intelligence

Undergraduate Level
Computer Science Algorithms **|** Artificial Intelligence **|** Basic Computer Programming **|** Computer Architecture **|** Data Structure **|** Digital Image Processing **|** Internet of Intelligent Things **|** Logic Circuit **|** Microcomputer Systems **|** Mobile Network **|** Numerical Analysis **|** Object-Oriented Programming **|** Operating Systems
Mathematics Calculus 1 **|** Calculus 2 **|** Electric Mathematics **|** Engineering Mathematics **|** Linear Algebra **|** Random Variables