Juhwan Choi

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Research Interest

Deep Learning, Natural Language Processing, Data-Centric Approach

Education

Chung-Ang University — Seoul, Korea
M.S. in Artificial Intelligence — Mar. 2023 - Feb. 2025 (Expected)
GPA: 4.33 / 4.5
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

Curriculum Data Augmentation for Image Classification
Under review.

Semantic-preserving Rule-based Text Data Augmentation
Under review.

Large Language Model as Multilingual Annotator
Under review.

Constructing Sport Game Conversation Dataset
Under review.

Soft Text AutoAugment
Under review.

Text Data Augmentation Based on Decision Boundary
Under review.

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, Juhwan Choi, Junho Lee, Soojin Jang and Youngbin Kim
TechArt

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

Research Projects

Multimodal Dataset Generation Nov. 2023 - Present

Domain Generalization through Dataset Generation Nov. 2023 - Present

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

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

Interactive News 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]

Services

Reviewer **ACL Rolling Review** (From 2023 August)
EACL 2024 (Through ACL Rolling Review 2023 October)
NAACL 2024 (Through ACL Rolling Review 2023 December)
ICLR 2024 Tiny Papers

Relevant Coursework

Graduate Level

Artificial Intelligence Deep Unsupervised Learning | Deep Generative Model | Graph Neural Networks | 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