Juhwan Choi

Researcher at AITRICS | Last Update: May. 16, 2025

✉ jhchoi@aitrics.com | ⚙ c-juhwan | in LinkedIn | 🏠Google Scholar

Research Interest

Deep Learning, Natural Language Processing, Large Language Models, Data-Centric AI

Education

Chung-Ang University   Seoul, Korea
M.S. in Artificial Intelligence   Mar. 2023 - Feb. 2025
GPA: 4.29 / 4.5 [Certificate] [Transcript]
Advisor: YoungBin Kim
Thesis: Universal Domain Generalization Based on Synthetic Data from Large Language Models
Chung-Ang University   Seoul, Korea
B.S. in Electrical and Electronics Engineering   Mar. 2017 - Feb. 2023
GPA: 3.94 / 4.5 [Certificate] [Transcript]

Research and Work Experience

Researcher   AITRICS, Seoul, Korea
                                                                            Feb. 2025 - Present

Research Assistant   Intelligent Information Processing Lab @ Chung-Ang Univ.
Advisor: YoungBin Kim   Mar. 2023 - Feb. 2025

Undergraduate 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

* denotes equal contribution.

Automating Electronic Medical Record Database Preprocessing based on LLM Agents
Under review at NeurIPS 2025.

Probing Multi-user DST Capability of Large Language Models
Under review at EMNLP 2025.

Textual Data Augmentation based on Semantic Triples
Under review at EMNLP 2025.

Plug-in and Fine-tuning: Bridging the Gap between Small Language Models and Large Language Models
Kyeonghyun Kim*, Jinhee Jang*, Juhwan Choi*, Yoonji Lee, Kyohoon Jin and YoungBin Kim
ACL 2025

Delving into Multilingual Ethical Bias: The MSQAD
with Statistical Hypothesis Tests for Large Language Models
Seunguk Yu, Juhwan Choi, and YoungBin Kim
ACL 2025

See-Saw Modality Balance: See Gradient, and Sew Impaired Vision-Language Balance
to Mitigate Dominant Modality Bias [Paper]

Junehyoung Kwon*, MiHyeon Kim*, Eunju Lee, <u>Juhwan Choi</u> and YoungBin Kim
NAACL 2025 (Oral Presentation)

SummPilot: Bridging Efficiency and Customization for Interactive Summarization System [Paper]
Jungmin Yun, <u>Juhwan Choi</u>, Kyohoon Jin, Soojin Jang, Jinhee Jang and YoungBin Kim
AAAI 2025 Demonstration Track

Korean Football In-game Conversation State Tracking Dataset for Dialogue and Turn Level Evaluation [Paper]
Sangmin Song, Juhyoung Park, <u>Juhwan Choi</u>, Junho Lee, Kyohoon Jin and YoungBin Kim
Engineering Application of Artificial Intelligence

**Questioning Internal Knowledge Structure of Large Language Models
Through the Lens of the Olympic Games** [Paper]
<u>Juhwan Choi</u> and YoungBin Kim
arXiv Preprint arXiv:2409.06518

VolDoGer: LLM-assisted Datasets for Domain Generalization in Vision-Language Tasks [Paper]
<u>Juhwan Choi</u>, Junehyoung Kwon, Jungmin Yun, Seunguk Yu and YoungBin Kim
arXiv Preprint arXiv:2407.19795

**UniGen: Universal Domain Generalization for Sentiment Classification
via Zero-shot Dataset Generation** [Paper] [Code] [Poster] [Presentation]
<u>Juhwan Choi</u>, Yeonghwa Kim, Seunguk Yu, Jungmin Yun and YoungBin Kim
EMNLP 2024

**Multi-News+: Cost-efficient Dataset Cleansing
via LLM-based Data Annotation** [Paper] [Code] [Poster] [Presentation]
<u>Juhwan Choi</u>, Jungmin Yun, Kyohoon Jin and YoungBin Kim
EMNLP 2024

**Don't be a Fool: Pooling Strategies in Offensive Language Detection
from User-Intended Adversarial Attacks** [Paper]
Seunguk Yu, <u>Juhwan Choi</u> and YoungBin Kim
NAACL 2024 Findings

**Enhancing Effectiveness and Robustness in a Low-Resource Regime
via Decision-Boundary-aware Data Augmentation** [Paper]
Kyohoon Jin*, Junho Lee*, <u>Juhwan Choi</u>*, Sangmin Song* and YoungBin Kim
LREC-COLING 2024

**Colorful Cutout: Enhancing Image Data Augmentation
with Curriculum Learning** [Paper] [Code] [Poster] [Presentation]
<u>Juhwan Choi</u> and YoungBin Kim
ICLR 2024 Tiny Papers
Accepted as notable work with oral presentation.

Adverb Is the Key: Simple Text Data Augmentation with Adverb Deletion [Paper] [Code] [Poster]
<u>Juhwan Choi</u> and YoungBin Kim
ICLR 2024 Tiny Papers

**AutoAugment Is What You Need: Enhancing Rule-based Augmentation Methods
in Low-resource Regimes** [Paper] [Code] [Poster] [Presentation]
<u>Juhwan Choi</u>, Kyohoon Jin, Junho Lee, Sangmin Song and YoungBin Kim
EACL 2024 Student Research Workshop

GPTs Are Multilingual Annotators for Sequence Generation Tasks [Paper] [Code] [Poster] [Presentation]
<u>Juhwan Choi</u>, Eunju Lee, Kyohoon Jin and YoungBin Kim
EACL 2024 Findings

SoftEDA: Rethinking Rule-Based Data Augmentation with Soft Labels [Paper] [Code] [Presentation]
<u>Juhwan Choi</u>, 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, <u>Juhwan Choi</u>, Soojin Jang and YoungBin Kim
The 13th International Conference on ICT Convergence

Domestic Publications

기계번역에서 효율적인 도메인 적응을 위한 적응형 데이터스토어 리사이징 [Paper]
Jinhee Jang, <u>Juhwan Choi</u>, Jungmin Yun and YoungBin Kim
2024 Summer Annual Conference of IEIE
대한전자공학회 하계학술대회 특별세션 은상 수상

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

KITE: 한국어 고의 오탈자를 활용한 텍스트 데이터 증강 방법론 [Paper]
Seunguk Yu, <u>Juhwan Choi</u>, 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, <u>Juhwan Choi</u>, Juhyoung Park, Kyohoon Jin and YoungBin Kim
Proceedings of HCI Korea 2023

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

Patents

이미지에 대한 주석 데이터 구축을 위한 장치 및 방법   KR 10-2024-0107178
발명자: 김영빈, 최주환. 특허 출원 및 심사단계

Research Projects

Development of Medical Counselor Chatbot   Jun. 2024 - Dec. 2024

Development of RAG-based Chatbot Assistant for Real Estate Law   Apr. 2024 - Dec. 2024

Honors & Awards

Travel Grant @ ICLR 2024   May. 2024

Skills

Programming Languages	**Familiar:** Python **Experienced:** Matlab | C | C++
Libraries & Tools	PyTorch | HuggingFace Transformers | Git | CLI
Language Proficiency	**Native:** Korean **Fluent:** English [TOEIC 980] [TEPS 409]

Services

Reviewer   ACL Rolling Review (From 2023 August)
EACL 2024
NAACL 2024, 2025
ACL 2024, 2025
EMNLP 2024
NeurIPS 2025
ICLR 2025
ACL SRW 2024, 2025
ICLR Tiny Papers 2024