# Hyukhun Koh, M.S.

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https://hyukhunkoh-ai.github.io/



#### **Education**

2022 – 2024 M.S. Interdisciplinary Program in Artificial Intelligence in Seoul National University

Thesis title: Intent Induction and Toxicity Mitigation for Reliable LM Agent.

2014 – 2022 **B.S. in Artificial Intelligence & European Languages and Cultures** in Sogang University.

Cumulative GPA: 4.1/4.5

### **Research Publications**

#### **Conference Proceedings**

- 1. VLind-Bench: Measuring Language Priors in Large Vision-Language Models Kang-il Lee, Minbeom Kim, Seunghyun Yoon, Minsung Kim, Dongryeol Lee, **Hyukhun Koh**, and Kyomin Jung (Arxiv. preprint submitted to 2024 NeurIPS)
- **2.** PLM-Based Discrete Diffusion Language Models with Entropy-Adaptive Gibbs Sampling **Hyukhun Koh**\*, Minha Jhang\*, Dohyung Kim, Sangmook Lee, and Kyomin Jung (Openreview. preprint submitted to 2024 EMNLP)
- **3.** Can LLMs Recognize Toxicity? A Structured Investigation Framework and Toxicity Metric **Hyukhun Koh**, Dohyung Kim, Minwoo Lee, and Kyomin Jung (Arxiv. submitted to 2024 EMNLP)
- **4.** Fine-grained Gender Control in Machine Translation with Large Language Models Minwoo Lee, **Hyukhun Koh**, Minsung Kim, and Kyomin Jung (2024 NAACL Main)
- **5.** Diversifying prosodic features of speech via determinantal point processes Seongho Joo, **Hyukhun Koh**, and Kyomin Jung (2023 EMNLP Main)
- **6.** Target-Agnostic Gender-Aware Contrastive Learning for Mitigating Bias in Multilingual Machine Translation

Minwoo Lee, **Hyukhun Koh**, Kang-il Lee, Dongdong Zhang, Minsung Kim, and Kyomin Jung (2023 EMNLP Main)

**7.** Reflecting dialogue and pretrained information into Multi Modal Emotion Recognition: Focusing on Text and Audio

Hyukhun Koh, Seongho Joo, and Kyomin Jung (2023 KCC)

#### Workshops

**1.** Multi-View Zero-Shot Open Intent Induction from Dialogues: Multi Domain Batch and Proxy Gradient Transfer

**Hyukhun Koh**, Haesung Pyun, Nakyeong Yang, and Kyomin Jung (2023 SIGDial Workshop on The Eleventh Dialog System Technology Challenge (DSTC11))

## **Skills**

Languages

English, French, Korean.

Coding

Python, R, sql/redis, нтмl/js, C, Docker, Kubernetes

## **Projects**

Dealing with all sensitive attributes: safe response generation

2022 Medical-expert chatbot system

Adapting object detection techniques for beat tracking in musical audio

Lecture to lecture note: Automatically generating educational writing materials

Analysis of the cultural difference between Asia and America in terms of gender-related words

Public transportation distribution analysis and improvement plan derivation (2021)

Glass recommendation system: We know what Glasses are good for you Image-to-Image generation using cycle GAN (2020)

Developing QA system for medical prescription with Transformer (2020)