CHAEYUN KIM

+82(10) 3691-3754 ⋄ Gwanak-gu, Seoul

golddohyun@snu.ac.kr ⋄ www.linkedin.com/in/dianecy112

INTERESTS

Visual Grounding, Generative AI (Diffusion based image editing), Multimodal Reasoning (QA, Chain of thought), Representation Learning

EDUCATION

Master of Data Science, Seoul National University   Expected 2024
Relevant Coursework :

- Required Courses (Machine Learning and Deep Learning (I, II), Big Data and Knowledge Management Systems (I, II), Computing for Data Science (I))
- Selective Courses (Machine Learning for Visual Understanding, NLP-Conversational AI and Dialogue Systems)

Bachelor of International Relations, Seoul National University   2017 - 2022

- Cumulative GPA : 4.15/4.3, *Summa Cum Laude*

EXCHANGE STUDENT PROGRAM

University of Washington, Seattle   2020.03 - 2020.06
Henry m. jackson school of international studies

Vrije Universiteit Brussel   2019.07 - 2019.08
Institute for European Studies : participated in SNU in the EU program, and took a special lecture for about three months on the international mission of the European Union.

EXPERIENCE

Visual Information Processing Laboratory, Seoul National University   Jan 2023 - Jul 2024
MS Research Assistant (Adviser: Prof. Joonseok Lee)

- Researched on visual grounding projects, especially on Referring Image Segmentation(RIS).
- Co-authored a proposal for a negative-mined mosaic augmentation framework, significantly improving multimodal understanding capabilities, and submitted to ECCV 2024.
- Currently conducting research on enhancing RIS task performance from a text modeling perspective, focusing on capturing composite linguistic cues under the co-supervision of Professor *Yohan Jo*.

PUBLICATIONS

Seongsu Ha[*], **Chaeyun Kim**[*], Donghwa Kim[*], Junho Lee, Sangho Lee, Joonseok Lee. Finding NeMo: Negative-mined Mosaic Augmentation for Referring Image Segmentation, *Submitted to ECCV, 2024* ([*]**Equal contribution**)

EXTRA-CURRICULAR ACTIVITIES

Multiple Book Publications   2020 - 2021
Actively authored working papers on social phenomena and international affairs.

- [Community Based Learning (Sub part of Chapter 8)](#)
- [The 4th Industrial Revolution and US-China Power Politics (Chapter 3)](#)

SNU- HIT International Joint Seminar   Sep 2017- Oct 2017, Sep 2019- Oct 2019

- (2017) Conducted discussion sessions and presentations under the themes of "Korea-Japan Security Cooperation Plan" and "GSOMIA and Japan's Constitutional Amendment"

- (2019) Seminar host in the history department; Presentation and discussion were conducted under the theme of "The Supreme Court's ruling on forced labor, the issue of individual claims, and ways to improve relations between Korea and Japan."

12th AFPLA (Asian Future Political Leaders' Association)   May 2018- Aug 2018
- Politics Division Session leader; Presentation and discussion were conducted on the research topic of "Definition, importance, and past, present, and future of 'citizen' and 'citizen culture'.

AWARDS AND HONORS

Academic Scholarship, Seoul National University, 2023
SNU Foundation Scholarship, Seoul National University, 2023
Office of International Affairs Scholarship, Seoul National University OIA, 2020
Dean's List, Academic Scholarship, 2018 – 2020
Global Leadership Award, Seoul National University, 2022
1st Place in Future Aerospace Conference (Division of Policy Strategy), 2021
1st Place in Social Science Research Grant for Undergraduate, 2020
3rd Place in KOICA 16th International Development Cooperation Paper Competition, 2019

PROJECTS

Resolving Multimodal Hallucinations through Semantics-Guided Augmentation   Sep 2023 - Dec 2023
(Term project) Team Leader
- Defined multimodal hallucination as the inconsistency in output when semantically identical but visually different texts are provided in a Visual Grounding task.
- Identified the primary cause as ambiguous or overly simplistic linguistic annotations in datasets, focusing on text modeling to enhance reasoning capabilities.
- Currently developing the concept further for submission as a main paper.

ECOLENS: Real-time Object Recognition for Recycling Guidance   Sep 2023 - Dec 2023
Machine Learning Engineer & Back-end Developer
- Aimed to devise a system that provides user-customized recycling instructions (text, speech) for objects to be disposed, based on photos of the objects and information about currently available bins.
- Developed the application backend using the Flask framework and built a MongoDB database.

Data-Effective Semantic Segmentation on 4D Point Cloud Videos   Mar 2023 - Jun 2023
(Term project) Team Member
- Designed a data-loading pipeline for effectively processing large-scale datasets.
- Proposed a framework that combines active learning and contrastive learning as a method to utilize feature representation in irregular and unordered point clouds efficiently.

GSDS PleaseGraduate : Graduation Requirement Checker, Course Recommender Oct 2022 - Jan 2023
Team Leader
- Led the development of a customized graduation requirement checking system for the Graduate School of Data Science.
- Handled UI design and front-end engineering (HTML, CSS, jQuery, Django), as well as managing the data preprocessing pipeline.

TEACHING EXPERIENCE

Tutor of Basic Computing Lecture, Seoul National University, Sep 2022 - Dec 2022
Teaching Assistant of *Principles and Applications of Data Science*, Seoul National University, Sep 2023 - Dec 2023
Teaching Assistant of *Machine Learning and Deep Learning I*, Seoul National University, Sep 2023 - Dec 2023

TECHNICAL SKILLS

Programming Languages: Python, R, SQL, C/C++
Frameworks and Libraries: PyTorch, TensorFlow, OpenCV, NumPy, Pandas, Sckit-learn, Seaborn, Flask

LANGUAGES

Korean: Native fluency
English: Full-professional fluency
Chinese: Intermediate
Spanish: Intermediate

LEADERSHIP

Vice President, Student's Association of Graduate School of Data Science   Aug 2023 - Feb 2024

- Acted as the cohort's deputy leader and a key member of the student's association, representing the Data Science department. Involved in facilitating various in-campus events, bi-weekly student seminar and more alongside other admins.