



## JIHYEON LEE

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### Research Interests

- Natural Language Understanding
- Multimodal Learning (Image/video and text data; Visual Question Answering)
- Self-supervised, Semi-supervised Learning
- De-biased Representation Learning (Robustness and Fairness issues on ML/DL models)

### Education

**M.S. Artificial Intelligence, KAIST**, Sunnam, Korea

Master of Artificial Intelligence (Candidate)

- Advisor: Prof. Jaegul Choo

Mar. 2020 –  
Present

**B.S., KAIST**, Daejeon, Korea

Bachelor of Business and Technology Management, double major in Industrial Engineering

- Cumulative GPA: 3.7/4.3, cum laude
- Dean's List (Fall 2016)
- National Science and Engineering Scholarship (Full tuition, Mar. 2014 – Feb. 2018)

Mar. 2014 –  
Feb. 2020

**Exchange Student, TU Darmstadt**, Hessen, Germany

Studied abroad for one year, took 7 courses in German and got 21 credits

- Main Coursework: Machine Learning, Operation Research, Entrepreneurship, Microeconomics

Mar. 2017 –  
Feb. 2018

### Publications

**P1** E, Kim\*, **J. Lee\***, J. Choo. "Removing Dataset Bias with Bias-Tailored Swapping Augmentation". Proc. of the IEEE international conference on computer vision (**ICCV**), 2021, Accepted (25.9% acceptance rate)

**W1** **J. Lee\***, Y. Tae\*, T. Kim\*, C. Park, J. Choo. "PePAL: Personalized Post-editing via Adversarial Learning using Cluster Label" (**Under Review**)

**W2** E.Kim, J. Lee, **J. Lee**, J. Choo. "Learning Debiased Representation via Disentangled Feature Augmentation" (**Under Review**)

### Research & Work Experience

**Kakao Brain**, Sunnam, Korea

AI Research Intern

- Research on Video-QA (multi-modal spatio-temporal reasoning) problem.

Jul. 2021 –  
Aug. 2021

## **Naver Papago, Sungnam, Korea**

### Research Collaborator

- Researched on personalized machine translation with real-world user data.
- Submitted paper at one of the top-tier AI conference (W1 in publications).

Jul. 2020 –

Feb. 2021

## **CLASSUM (Startup Company), Seoul, Korea**

### Data Analyst & Marketer

- Defined the useful raw data and KPI that should be tracked in the service, collected these data properly in the database, and made dashboard to analyze it easily.
- Planned and wrote code for marketing automation, such as email automation with GCP and tracking user events in web/app with analytics tools.
- Ran ads on Facebook and Google Ads in consideration of quantitative analysis to expand the business efficiently.

Feb. 2019 –

Dec. 2019

## **Music and Audio Computing Lab, KAIST, Daejeon, Korea**

### Lab Intern

- Audio-To-Score alignment of piano music using RNN-based automatic music transcription.
- Improved the pre-processing pipeline to create a MIDI file that accurately retains the characteristics of original audio file.

Aug. 2018 –

Sep. 2018

## **Block Odyssey (Startup Company), Daejeon, Korea**

### Developer

- Designed and programmed a service landing page with Figma, React and Node.js.

Jun. 2018 –

July. 2018

## **Teaching Experience**

### **AI Workshop Instructor**

- Samsung DS (AI Expert Program), instructing image captioning (Aug. 2020)
- SK Telecom (Advanced CDS Program), instructing image style transfer and sentiment analysis (Sep. 2020)
- KOSME (Korea Small & Medium Enterprises), mentoring on Kaggle competitions and instructing natural language processing (Dec. 2020 - Feb. 2021)

## **Skills & Personal Information**

### **Languages**

- Native Korean, Fluent in English (TOEIC 980, OPIC AL).

Dec. 1996 –

Present

### **Computer Skills**

- Expert in deep learning frameworks, particularly in Pytorch.
- Expert in ML and Visualization libraries: OpenCV, Torchtext, Scikit-Learn and Matplotlib.
- Expert in Python, HTML and CSS.
- Intermediate in Javascript and MySQL.

### **Personality**

- Self-assured, energetic, driven, unbiased, warm and smiling