Gyeongbok **Lee**

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My research interests lie in the fields of natural language processing (NLP), model interpretability, and knowledge representation. My work primarily involved rapidly implementing and demonstrating research findings for practical use, leveraging a diverse skillset. I value the research direction of exploring and building applications that will help people increase productivity by utilizing AI/ML technologies such as large language models (LLMs). I'm also interested in the techniques for deploying models for various services.

Skills

- **Programming Language:** Python (main), Java, Javascript
- **Library and Tools:**
    - AI/ML Frameworks (PyTorch, Lightning, HuggingFace Transformers, vLLM)
    - Web Development (Bootstrap, jQuery / FastAPI, uvicorn)
    - Mobile Development Environments (Android SDK, Java)

Work History

FEB 2019 – PRESENT

AI Researcher, Text AI Lab, NCSOFT

currently in Generation Application Team

Research topics includes:

- Deep learning model design & implementation
  (user recommendation system, stock market prediction, drug-target interactions, etc.)
- Explainable AI (XAI) in natural language processing model
- Log abstraction with process mining and graph summarization for game bot detection
- Building large language model (LLM) applications to help game development processes

JUL 2018 – OCT 2018

Internship, NAVER (Clova AI)

Topic: SQuAD 2.0, Debugging QA Model

Role: model design and implementation (Keras/Tensorflow), experiment design

AUG 2016 – JUN 2017

Industry-Academic Cooperation Project, NAVER

Topic: Query Intention Representation using Deep Neural Networks

Role: model design and implementation (PyTorch), build web framework (Bootstrap, Flask, etc)

Education

SEP 2016 – FEB 2019

M.S., Computer Science, Yonsei University

Supervisor: Prof. Seung-won Hwang

Thesis: Explainable Machine Reading Comprehension Framework for Model Debugging

MAR 2013 – AUG 2016

B.S., Computer Science, Yonsei University

Summa Cum Laude (GPA 4.08/4.3, Top 1%)

Publications

SQuAD2-CR: Semi-supervised Annotation for Cause and Rationales for Unanswerability in SQuAD 2.0

Gyeongbok Lee, Seung-won Hwang, Hyunsouk Cho

LREC 2020 - The International Conference on Language Resources and Evaluation

Explanatory and Actionable Debugging for Machine Learning: A TableQA Demonstration

Minseok Cho, Gyeongbok Lee, Seung-won Hwang

SIGIR 2019 (Demonstration) - Annual Conference of the Association for Computing Machinery Special Interest Group in Information Retrieval

QADiver: Interactive Framework for Diagnosing QA Models

Gyeongbok Lee, Sungdong Kim, Seung-won Hwang

AAAI 2019 (Demonstration) - Association for the Advancement of Artificial Intelligence

Visual Choice of Plausible Alternatives: An Evaluation of Image-based Commonsense Causal Reasoning

Jinyoung Yeo, {Gyeongbok Lee, Gengyu Wang}*, Seungtaek Choi, Hyunsouk Cho, Reinald Kim Amplayo, Seung-won Hwang (*equal contribution)

LREC 2018 - The International Conference on Language Resources and Evaluation

Personal Projects

MAR 2019 – PRESENT

GotoBrowser - Android Browser for KanColle 2nd Phase (HTML5)

Github: https://github.com/antest1/GotoBrowser

Role: Full-stack development (Android, Javascript), i18n (jp/en/ko/cn) support

DEC 2016 – PRESENT

Kcanotify - Viewer Application for KanColle Android

Github: https://github.com/antest1/kcanotify

Role: Full-stack development (Android, PHP, AWS), i18n (jp/en/ko/cn) support

Academic Services

2021 – 2025
AAAI Program Committee Member
Association for the Advancement of Artificial Intelligence (Conference Reviewer)
included in the top 25% of Program Committee Members (2021)

2020 / 2022 / 2024
LREC Scientific Committee Member
The International Conference on Language Resources and Evaluation (Conference Reviewer)

Awards

JUN 2017
KISTI President Award for SW Implementation/Demo Contest
KCC 2017 conference (Domestic Competition)
Topic: KB inference for Action-driven Chatbots

APR 2017
Top Winner of BIG 2017 Cup Challenge
BIG 2017 conference co-located with WWW 2017 (International Competition)
Topic: IsA relationship extraction from large-scale concept graphs

JUN 2016
Excellence Award for Graduation Exhibition
Dept. of Computer Science, Yonsei University
Topic: Development of REST Service for Author-Paper Identification

APR 2016
Top Winner of BIG 2016 Cup Challenge
BIG 2016 conference co-located with WWW 2017 (International Competition)
Topic: Author-Paper Identification from large-scale heterogenous academic graphs

NOV 2015
Excellence Award for Graduation Exhibition
Dept. of Computer Science, Yonsei University
Topic: Web Framework Development for Comparison Analysis of Classification Methods in
    Sensor Data Stream

Teaching Experiences

SPRING 2018

Teaching Assistant (TA)

Yonsei University, Seoul
- CSI4108: ARTIFICIAL INTELLIGENCE (Undergraduate)

SPRING 2015 / FALL 2015 / SPRING 2016

Student Tutor

On-campus Tutoring Program in Yonsei University, Seoul
- CSI2109: INTERNET PROGRAMMING (Undergraduate)
- CSI2102: OBJECT-ORIENTED PROGRAMMING (Undergraduate)

Awarded as the Outstanding Tutor (Spring 2015) & Outstanding Tutoring Team (Fall 2015, Spring 2016)

Scholarships

FALL 2016 / SPRING 2017 / FALL 2017

Internal Scholarship (Graduate, Yonsei University)

FALL 2016

NAVER M.S Student Fellowship (NAVER)

FALL 2013 / SPRING 2015 / FALL 2015 / SPRING 2016

National Science and Technology Scholarship (KOSAF)

SPRING 2013 / SPRING 2014 / FALL 2014

Internal Scholarship (Undergraduate, Yonsei University)