JAEHUN JUNG

856-1 Bongcheon-dong, Gwanak-gu, Seoul, 08778, Korea, Republic of
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EDUCATION	**Seoul National University,** Seoul, Korea, Republic of Undergraduate Major: Computer Science and Engineering Overall GPA: 4.23 / 4.3 (Major: 4.21 / 4.3)	Mar 2014 ~ Present

RESEARCH INTERESTS

Information Extraction, Relational Reasoning, Knowledge Graph Completion, Semantic Parsing, Neural Machine Translation

PUBLICATIONS

[1] <u>Jaehun Jung</u>, Bokyung Son*, Sungwon Lyu*. **AttnIO: Knowledge Graph Exploration with In-and-Out Attention Flow for Knowledge-Grounded Dialogue.** *In Proceedings of 2020 Conference on Empirical Methods for Natural Language Processing (EMNLP 2020).*

[2] <u>Jaehun Jung</u>, Jinhong Jung, U Kang. **T-GAP: Learning to Walk across Time for Temporal Knowledge Graph Completion.** *(under review)*

[3] Guhyun Han, <u>Jaehun Jung</u>, YoungHo Kim, Jinwook Seo. **DataHalo: Customizable Visualization System to Embody Personal Design Perspectives of Ambience.** *(under review)*

* denotes equal contribution.

ACADEMIC EXPERIENCE	**Data Mining Lab,** Seoul National University Undergraduate Research Program (URP) Advisor: Prof. U Kang Proposed a novel temporal reasoning model based on attention propagation and GNN, achieving state-of-the-art results in temporal knowledge graph completion benchmarks.	Mar 2020 ~ Jun 2020
	Human-Computer Interaction Lab, Seoul National University Research Intern Advisor: Prof. Jinwook Seo Designed, and Implemented mobile user-context aware application, through customizable information visualization on smartphone notification dataset.	Mar 2018 ~ Dec 2019

INDUSTRIAL EXPERIENCE	**Kakao Enterprise,** Seoul, Korea NLP Researcher Developed / Deployed a fast language detection model for Neural Machine Translation. Research on hyperbolic VAE for Neural Machine Translation.	Apr 2020 ~ Present
	Kakao AI Lab, Seoul, Korea Research Intern Proposed a new approach toward knowledge graph exploration for knowledge-grounded dialogue system.	Jan 2020 ~ Mar 2020
	SNULife, Seoul National University CTO Developed new services and led maintenance for SNULife.com, an online student community with 170k+ users.	May 2018 ~ Mar 2019

Police Tactical Unit, Daegu Metropolitan Police Agency   Mar 2015 ~ Feb 2017
Auxiliary Police, HR Department (Mandatory Military Service)
Developed Human Resource DBMS, currently deployed to nationwide police agencies.

SCHOLARSHIPS   **Academic Excellence Scholarship,** Seoul National University   2014, 2015, 2017
Merit-based undergraduate scholarship.

National Scholarship for Science and Engineering   2018 ~ 2020
Merit-based full stipend scholarship by KOSAF (*Korean Student Aid Foundation)*

ACTIVITIES &   **Unsupervised NMT,** Term project for *Creative Integrated Design*   2020
PROJECTS   Conducted a joint project with LG CNS corporation. Applied unsupervised NMT based
on back translation for data augmentation on Korean QA.

Deepest, Deep-learning academics group   2019
Conducted a group study on representation learning, and gave two talks on BERTology
and knowledge graph completion.

Scientific Text Generation, Term project for *Introduction to Machine Learning*   2019
Generated scientific paper abstract with a Seq2Seq model augmented by SciIE and
Graph Transformer.

Pillbox, Term project for *Software Development Principles and Practices*   2019
Developed Pillbox, a web application for medication management based on OCR.

LectureRoom+, Mobile Application   2018
Developed a cross-platform mobile app for lecture Q&A and student gathering.
Downloaded by 10k+ users.

SKILLS   **Languages**
Korean (Native), English (Professionally Fluent)
GRE: Verbal - 164 / Quant - 170 / Writing - 4.0 (Sep 2020)

Programming Frameworks
Machine Learning: Pytorch, Pytorch-Lightning, Deep Graph Library, Pytorch-Geometric,.TensorFlow, Keras
Visualization: Plotly, D3.js
Web Development: Django, PHP / React.js
Mobile Development: Android (Java, Kotlin)

Online Courses
ML@Coursera, Deep Learning Specialization@deeplearning.ai