Junmo **Kang**

Researcher at KAIST IR&NLP Lab

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RESEARCH INTERESTS

Natural Language Processing, Machine Learning
Question Answering, Generative Model, Information Retrieval, Representation Learning

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)   Daejeon, Korea
M.S. in School of Computing   Mar. 2019 - Feb. 2021
- Advisor: Sung-Hyon Myaeng
- Thesis committee: Sung-Hyong Myaeng, Hojin Choi, Alice Oh
- GPA: 4.03 / 4.30

Chungnam National University   Daejeon, Korea
B.S. in Computer Science & Engineering   Mar. 2012 - Feb. 2019
- Summa Cum Laude
- GPA: 4.30 / 4.50 (Rank: 1/125 in CSE, Major GPA: 4.44)

PUBLICATIONS

* indicates equal contribution.

[1] **Leveraging Order-Free Tag Relations for Context-Aware Recommendation**   EMNLP, 2021
Junmo Kang, Jeonghwan Kim, Suwon Shin, Sung-Hyon Myaeng

[2] **Ultra-High Dimensional Sparse Representations with Binarization for Efficient Text Retrieval**
EMNLP, 2021
Kyoung-Rok Jang, **Junmo Kang**, Giwon Hong, Sung-Hyon Myaeng, Joohee Park, Taewon Yoon, Heecheol Seo

[3] **Have You Seen That Number? Investigating Extrapolation in Question Answering Models**   EMNLP, 2021
Jeonghwan Kim, Giwon Hong, Kyung-min Kim, **Junmo Kang**, Sung-Hyon Myaeng

[4] **Can You Distinguish Truthful from Fake Reviews? User Analysis and Assistance Tool for Fake Review Detection**   HCI+NLP@EACL, 2021
Jeonghwan Kim*, **Junmo Kang***, Suwon Shin*, Sung-Hyon Myaeng [pdf]

[5] **Maximizing Efficiency of Language Model Pre-training for Learning Representation**   KSC, 2020
Junmo Kang*, Suwon Shin*, Jeonghwan Kim*, Jaeyoung Jo*, Sung-Hyon Myaeng [pdf]

[6] **Handling Anomalies of Synthetic Questions in Unsupervised Question Answering**   COLING, 2020
Giwon Hong*, **Junmo Kang***, Doyeon Lim*, Sung-Hyon Myaeng [pdf]

[7] **Regularization of Distinct Strategies for Unsupervised Question Generation**   Findings of EMNLP, 2020
Junmo Kang*, Giwon Hong*, Haritz Puerto San Roman*, Sung-Hyon Myaeng [pdf]

[8] **Let Me Know What to Ask: Interrogative-Word-Aware Question Generation**   MRQA@EMNLP, 2019
Junmo Kang*, Haritz Puerto San Roman*, Sung-Hyon Myaeng [pdf]

EXPERIENCES

KAIST IR&NLP Lab   Mar. 2021 - Present
Research Associate
  - Working on QA and IR.

Poten Brothers   Mar. 2017 - Feb. 2018
Co-founder
  - Developed an online interview-based survey platform that induces potential customers to provide start-ups with profound and fresh feedback on their early-stage products.

Republic of Korea Army   Apr. 2013 - Jan. 2015
Honorably discharged as Sergeant
  - Compulsory military service.

PROJECTS

Neural Information Retrieval   Mar. 2021 - Present
Funded by Samsung SDS (KAIST - Samsung SDS AI research)
  - Developing an efficient open-domain question answering system based on latent sparse representations.
  - Developing an ensemble model that exploits the distinct effects of dense and sparse models.

Deep Matching for Efficient Search   Nov. 2019 - Oct. 2020
Funded by NAVER
  - Proposed a novel sparse representation model for passage retrieval that can take advantage of an efficient inverted index and symbolic IR techniques.

Exobrain   Mar. 2019 - Present
Funded by Korean Government (Ministry of Science and ICT)
  - Developed an ensemble model that combines graph-based QA model and reading comprehension QA model (1st rank in the leaderboard of TriviaQA Wikipedia at the date of 08/10/19).
  - Working on improving multi-hop QA using graph neural networks (HotpotQA).

Machine Learning for Context Association and Smart Interaction Suggestion   Mar. 2019 - Mar. 2021
Funded by Korean Government (Ministry of Science and ICT)
  - Worked as a project manager, with the focus on Instagram tag recommendation considering multi-modal contexts (image, location, time, text).
  - Proposed a novel generation model that takes into account the inter-dependency of tags while alleviating the order sensitivity.

HONORS & AWARDS

Graduated with Highest Honor in CSE, Chungnam National University	2019
Grand Prize, Business ICT Competition	2018
Excellence Award, Startup Competition	2018
Finalist (Top 20), NAVER AI Hackathon	2018
Grand Prize, Daejeon Startup School	2017
Excellence Award, CNU Creative Works Competition	2017
Best Excellence Award, C.N.U.Vill	2017
Best Excellence Award, Startup Picnic	2016
Finalist (Top 2), Microsoft Imagine Cup Korea	2016