

Jaemin Cho

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Interests

Machine Learning, Sequence Modeling

Generative Models, Representation Learning, Inductive Bias, Uncertainty Estimation

Education

Seoul National University

B.S. IN INDUSTRIAL ENGINEERING

Seoul, Korea

Mar. 2011 - Feb. 2018.

Publications

- [1] Yookoon Park, **Jaemin Cho**, and Gunhee Kim. A hierarchical latent structure for variational conversation modeling. In *NAACL (Oral)*, 2018. [Paper] [Code] [Video].
- [2] **Jaemin Cho**, Minjoon Seo, and Hannaneh Hajishirzi. Sequence-to-sequence learning with diverse content selection and focused generation. 2019. (Under Review).

Honors

- 2018 **Kakao Travel Grant (\$4000)**, ICML 2018
- 2017 **Semi-finalist (Top 10)**, Amazon Alexa Prize

Research Experience

NAVER Clova

AI RESIDENCY (ADVISOR: MINJOON SEO)

- Worked on Diverse Seq2Seq (Submitted) [2]

Seongnam, Korea

Jul. 2018 - Mar. 2019

Seoul National University

RESEARCH INTERN @ VISION AND LEARNING LAB (ADVISOR: GUNHEE KIM)

- Worked on VHCR: Mitigates posterior collapse of Seq2Seq-VAE with hierarchical latent variable (NAACL 2018 Oral) [1]
- Developed image captioning engine (on par with SCST only with cross entropy training)

Seoul, Korea

Mar. 2017 - May 2018

Hong Kong University of Science and Technology

RESEARCH INTERN (ADVISOR: SUNGHUN KIM)

- Led project on *AST-based Python-Pseudocode Translation*

Hong Kong

Jan. 2017 - Feb. 2017

Polytechnique Montréal

RESEARCH INTERN (ADVISOR: NADIA LAHRICHI)

- Led project on *Optimization on Homecare Nursing Assignment*
- Developed Patient classification & Nursing scheduling framework based on Mixed-Integer Programming

Montreal, Canada

Jan. 2015 - Jun. 2015

Industry Experience

DataNada

NLP RESEARCHER (ADVISOR: JOHN PARK)

- Worked on Dialog Management & Dependency Parsing
- Developed financial service chatbot *ADA* & Korean dependency parsing Open API *D-Parser*

Seoul, Korea

Aug. 2016 - Dec. 2016

Teaching Experience

Teaching Assistant

MACHINE LEARNING (GRADUATE COURSE)

- Instructor: Prof. Hyun Oh Song

Seoul National University

Sep. 2017 - Dec. 2017

Instructor

DEEP LEARNING / NLP / CHATBOT DEVELOPMENT

- 4-week tutorial on chatbot development for 80+ developers [Course materials]

FastCampus, Seoul

June. 2017 - Sep. 2017

Projects

Grace

FAST AND SCALABLE KOREAN NER ENGINE

- Outperformed all baselines of 2017 Korean Language expos NER Competition
- Deployed as part of Kakao's NLU Engine

dparser

FIRST KOREAN DEPENDENCY PARSER OPEN API

- Converted Sejong Corpus (The largest Korean constituency corpus) into CoNLL-U format

Awesome-Korean-NLP

CURATED LIST OF KOREAN NLP RESOURCES

Public Implementations

MINIMAL IMPLEMENTATIONS OF SOME ML ALGORITHMS

- Unsupervised Video Summarization with Adversarial LSTM Networks (SUM-GAN) (PyTorch)
- Monotonic Chunkwise Attention (PyTorch)
- Generative models including GAN / VAE / PixelCNN (PyTorch)
- Bayesian interpretation of Dropouts (Gaussian Dropout / Variational Dropout) (PyTorch)
- Matrix Factorizations, Optimizations, MC Sampling (SciPy / SymPy / PyTorch)
- WikiExtractor Extensions for Wikipedia & Namuwiki
- Advanced TensorFlow Tutorials (TensorFlow)

Talks

2018 **Kakao**, Generative Models & Variational Inference

2017 **TensorFlow KR**, Developing Korean Chatbot 101

Extracurricular Activities

PyTorch KR

ADMINISTRATOR

Seoul, Korea

Mar. 2017 - Present

- One of the Biggest ML communities in Korea (6000+ members as of April 5, 2019)
- Organized various events: [PyTorch KR Meetup 2017], [Paper Day 2018], [Tutorial Competition 2018]

SNU AI Study Group

ADMINISTRATOR

Seoul, Korea

Jun. 2016 - Present

- Weekly ML study group at SNU [All slides are public]
- Members include leaders of NAVER, Kakao and many AI research institutes as long as students and professors

US Army

SERGEANT (E-5)

Camp Stanley, Korea

May. 2012 - Feb. 2014

- Served 2 years as KATUSA (Korean Augmentation to the US Army)
- Ground Ambulance & Operational Planning

StreetDancer

POPPING

Seoul, Korea

2005 - Present

- Performed in various domestic / international events
- Led project on *Music-conditioned Choreography Generation based on Deep Learning*

References

Minjoon Seo

PH.D. CANDIDATE & RESEARCH SCIENTIST

U.Washington & NAVER Clova

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Gunhee Kim

ASSISTANT PROFESSOR

Vision and Learning Lab, SNU

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Jung-woo Ha

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