Yookoon Park

Email: yookoonpark@gmail.com Mobile: +82-10-6698-2672
Webpage: https://yookoon.github.io

Education

Seoul National University March 2017 – present
M. Sc. Student. Computer Science and Engineering.
Advisor: Gunhee Kim
GPA: 4.24 / 4.3

Seoul National University 2010 – 2016
B. Sc. Computer Science and Engineering & Statistics (Double Major).
GPA: 4.0 / 4.3. Summa Cum Laude.

Research Experience

Seoul National University March 2017 – present
M. Sc. Student and Research Assistant. Vision and Learning Lab.
Advisor: Gunhee Kim

- **SplitNet: Learning Tree-like Neural Network Structures**
  Developed a novel group sparse weight regularization to split deep neural networks into tree-like layer structure for parameter reduction and model parallelization.
  In ICML 2017, oral presentation and poster (co-first author).
- **Conversation Modeling using Variational Autoencoders**
  Proposed a hierarchical latent variable model and utterance drop regularization technique to tackle the *vanishing KL divergence* problem in RNN-VAE models for conversation modeling.
  In NAACL 2018, oral presentation (lead author).
- **Vairaiontal Laplace Autoencoders**
  We tackle the two challenges in amortized variational inference: 1) amortization gap 2) diagonal Gaussian assumption, based the idea of Laplace approximation. Drawing the relation between variational autoencoders and probabilistic PCA, we derive the local, full-covariance Gaussian approximation and update equations for its parameters.
  In submission to ICML 2019 (lead author).

Seoul National University 2015 – 2016
Undergraduate Research Intern. Vision and Learning Lab.
Advisor: Gunhee Kim

Publications

Yookoon Park, Jaemin Cho, Gunhee Kim. **A hierarchical latent structure for variational conversation modeling**. In *NAACL, 2018* (Oral).
Paper: http://aclweb.org/anthology/N18-1162
Code: http://vision.snu.ac.kr/projects/vhcr

Yookoon Park*, Juyong Kim*, Gunhee Kim, Sung Ju Hwang. **SplitNet: Learning to semantically split deep networks for parameter reduction and model parallelization**. In *ICML, 2017* (Oral and poster). (* equal contribution)
Paper: http://proceedings.mlr.press/v70/kim17b/kim17b.pdf
Code: http://vision.snu.ac.kr/projects/splitnet

Research Interests	Unsupervised Learning, Hierarchical Models and Variational Inference. Machine Learning Applications in Computer Vision and Natural Language.	
Honors	Korea Foundation for Advanced Studies (KFAS) Doctoral Study Abroad Scholarship. Full-tuition, fees and stipends.	Prospective
	Korea Foundation for Advanced Studies (KFAS) Graduate Student Scholarship. Full-tuition and fees.	2017 – present
	National Science and Engineering Scholarship. Full-tuition and fees.	2010 – 2016
Teaching Assistant	SNU M1522.001000 Computer Vision	Spring 2018
	SNU 4190.678 Natural Language Processing	Fall 2017
	SNU 4190.101 Discrete Mathematics	Spring 2017
English Proficiency	TOEFL IBT 115/120. (Reading: 30, Listening: 30, Speaking: 26, Writing: 29)	
	GRE Verbal: 165/170, Quantitative: 170/170, Analytical Writing 3.5/6.0	
Programming Proficiency	Python, TensorFlow and Pytorch.	
Military Service	52 Army Division Military Band, South Korea.	2013 – 2014