

Please do the following:

1. Choose a paper from the paper list below.
2. Send the following information to nakajima@tu-berlin.de (**by 23.11.2018**).
 - Full name
 - Matr. No.
 - Email address
 - The paper title of your choice

I'll assign an adviser to each student and let you know her/his email address (**by 30.11.2018**).

3. Contact your adviser for a meeting asap (some advisers could take a long vacation).
4. Prepare slides for your talk (ca 15-20min) in the block-seminar **on 25.1.2018**.
5. Attend the block-seminar, give your talk, discuss on other's talks!

Below is the list of papers:

1 Data Structure/Indexing

- M. Datar, N. Immorlica, P. Indyk, V.S. Mirrokhn, "Locality-sensitive hashing scheme based on p-stable distributions," In SCG, pages 253–262, 2004.
- Prateek Jain, Sudheendra Vijayanarasimhan, Kristen Grauman, "Hashing Hyperplane Queries to Near Points with Applications to Large-Scale Active Learning."
- P. Li, M. Mitzenmacher, A. Shrivastava, "Coding for Random Projections."
- M. Drosou, E. Pitoura, "Diverse set selection over dynamic data. IEEE Transactions on Knowledge and Data Engineering," 26(5):1102–1116, 2014.

2 Cluster Computing Framework

- P. Carbone, S. Even, S. Haridi, "Apache Flink: Unified stream and batch processing in a single engine."
- Ghoting, A., Krishnamurthy, R., Pednault, E., Reinwald, B., Sindhwani, V., Tatikonda, S., ... and Vaithyanathan, S., "SystemML: Declarative machine learning on MapReduce," In 2011 IEEE 27th International Conference on Data Engineering (pp. 231-242).
- Chen, T., Li, M., Li, Y., Lin, M., Wang, N., Wang, M., ... and Zhang, Z., "Mxnet: A flexible and efficient machine learning library for heterogeneous distributed systems," arXiv preprint arXiv:1512.01274, 2015.

3 Bayesian Learning

- Y. Li, J.M. Hernandez-Lobato, R.E. Turner, "Stochastic Expectation Propagation," NIPS 2015.
- M.E. Khan, P. Baque, F. Fleuret, P. Fua, "Proximal Variational Inference," NIPS 2015.
- D. P. Kingma, M. Welling, "Auto Encoding Variational Bayes."
- Diederik P. Kingma, Tim Salimans, Max Welling, "Variational Dropout and the Local Reparameterization Trick," NIPS2015.

- H. He, B. Xin, D. Wipf, "From Bayesian Sparsity to Gated Recurrent Nets," arXiv:1706.02815, Accepted for oral presentation in NIPS 2017.
- T. D. Kim and S. Choi, "Scalable Variational Bayesian Matrix Factorization with Side Information," AISTATS 2016.

4 Deep Learning

- P. Samangouei, M. Kabkab, and R. Chellappa, "Defense-gan: Protecting classifiers against adversarial attacks using generative models," in International Conference on Learning Representations, vol. 9, 2018.
- Jian Zhou and Olga G Troyanskaya, "Predicting effects of noncoding variants with deep learning? based sequence model," Nature Methods, 12(10): 931?934. doi:10.1038/nmeth.3547, 2015.
- P. Mamoshina et al., "Applications of Deep Learning in Biomedicine," Mol. Pharmaceutics 13, 5, 1445-1454, 2016
- C. Zhang et al., "Understanding deep learning requires rethinking generalization," ICLR 2017.
- S. Santurkar, et al., "How Does Batch Normalization Help Optimization?" arXiv:1805.11604, 2018.
- A. Nguyen, et al., "Plug & Play Generative Networks: Conditional Iterative Generation of Images in Latent Space."
- Motiian et al., "Few-Shot Adversarial Domain Adaptation," NIPS 2017.
- Redmon et al. "You Only Look Once: Unified, Real-Time Object Detection," CVPR 2016.
- G. Alain, Y. Bengio, "What Regularized Auto-encoders Learn from the Data Generating Distribution," Journal of Machine Learning Reserach, 15, 3743-3773, 2014.

5 Randomized Algorithms

- Alexander Kraskov, Peter Grassberger, "MIC: Mutual Information based hierarchical Clustering," Information Theory and Statistical Learning, 2008.

6 Model Compression

- Dmitry Molchanov, Arsenii Ashukha, Dmitry Vetrov, "Variational Dropout Sparsifies Deep Neural Networks," ICML2017.

7 Explanation

- E. Strumbelj, I. Kononenko, "An Efficient Explanation of Individual Classifications using Game Theory."

8 Kernel Approximation

- Si, Hsieh, Dhillon , "Memory Efficient Kernel Approximation," Journal of Machine Learning Research, vol.18, pp.1-32, 2017.
- Rahimi and Recht, "Weighted Sum of Random Kitchen Sinks."

9 Density Estimation

- A. Glazer, M. Lindenbaum, and S. Markovitch, "q-OCSVMM: A q-Quantile Estimator for High-Dimensional Distributions," NIPS 2013.
- Roger Koenker, Gilbert Bassett, Jr., "Regression Quantiles," *Econometrica*, Vol. 46, No. 1. (Jan., 1978), pp. 33-50.