Hot Topics in Machine Learning Seminar

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April 19, 2013

Abstract

Students have the opportunity to learn about recent developments in Machine Learning. Every participant can choose among some preselected papers and present it at the end of the semester to an interested audience. The talks will be 35min long, plus some extra time for Q&A. Any interested student will be supervised by a member of the lab who will help understanding the research idea and preparing an adequate talk. The seminar will be held in english language.

Dates

Monday, 22.04.2013, 10:00-12:00am, Room MAR 4.033 "Grab your paper meeting"

Summer Term 2013 Topics

(Topic): (Supervisor) [Paper]

- Crowdsourcing: Guido Schwenk [7]
- Multi-task Learning: Alexander Binder [5]
- Large-scale Learning and Optimization: Daniel Bartz [3], Andreas Ziehe [6], Felix Brockherde [2], Nico Görnitz [9]
- Brain-Computer Interfaces: Irene Winkler [1]

- Latent Structural Support Vector Machines: Nico Görnitz [8]
- Zero-shot Learning: Bettina Mieth [4]

References

- B. Blankertz, R. Tomioka, S. Lemm, M. Kawanabe, and K.-R. Mueller. Filters for Robust EEG. *IEEE Signal Processing Magazine*, (January 2008):41–56, 2008.
- [2] L. Bottou. Large-Scale Machine Learning with Stochastic Gradient Descent. In *Compstat*, number x, 2010.
- [3] L. Bottou and O. Bousquet. The tradeoffs of large scale learning. In NIPS, volume 20, pages 161–168. Citeseer, 2007.
- [4] M. Palatucci, G. Hinton, D. Pomerleau, and T. M. Mitchell. Zero-Shot Learning with Semantic Output Codes. In NIPS, pages 1–9, 2009.
- [5] S. Parameswaran and K. Q. Weinberger. Large Margin Multi-Task Metric Learning. In NIPS, pages 1–9, 2010.
- [6] A. Rahimi and B. Recht. Random Features for Large-Scale Kernel Machines. In NIPS, number 1, pages 1–8, 2007.
- [7] V. C. Raykar, S. Yu, L. H. Zhao, G. H. Valadez, C. Florin, L. Bogoni, and L. Moy. Learning From Crowds. *JMLR*, 11:1297–1322, 2010.
- [8] C.-n. J. Yu and T. Joachims. Learning Structural SVMs with Latent Variables. In *ICML*, 2009.
- [9] a. L. Yuille and A. Rangarajan. The concave-convex procedure. *Neural* computation, 15(4):915–36, Apr. 2003.