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* OBERSEMINAR BILDVERARBEITUNG COMPUTERSEHEN UND COMPUTERGRAPHIK *
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Albert-Ludwigs-Universität Freiburg
Institut für Informatik

Prof. Dr. Thomas Brox
Prof. Dr. Matthias Teschner

Am Freitag, 10. November 2017, 14:00 hst berichtet Herr Sudhanshu Mittal über das Ergebnis seiner Masterarbeit:

"Semi-supervised Learning for Real-world Object Recognition using Adversarial Autoencoders"

Abstract:

For many real-world applications, labeled data can be costly to obtain. Semi-supervised learning methods make use of substantially available unlabeled data along with few labeled samples. Most of the latest work on semi-supervised learning for image classification show performance on standard machine learning datasets like MNIST, SVHN, etc. In this work, we propose a convolutional adversarial autoencoder architecture for real-world data. We demonstrate the application of this architecture for semi-supervised object recognition. We show that our approach can learn from limited labeled data and outperform fully-supervised CNN baseline method by about 4% on real-world datasets. We also achieve competitive performance on the MNIST dataset compared to state-of-the-art semi-supervised learning techniques. To spur research in this direction, we compiled two real-world datasets: Internet (WIS) dataset and Real-world (RW) dataset which consists of more than 20K labeled samples each, comprising of small household objects. We also show a possible application of this method for online learning in robotics.

Zeit: Friday, 10.11.2017, 14:00 hst Achtung: Geänderte Zeit, geändertes Datum
Ort: Seminar Room building 80 (AIS) und geänderter Raum !!!

Interessenten sind herzlich eingeladen. Weitere Informationen bei:

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<http://lmb.informatik.uni-freiburg.de/lectures/oberseminar/>