

Use this etherpad to note links to paper/presentations/blogs that you would like to show.
See you on Nov 2, SR2, CSBD, Dresden!

Marc Bickle:

"Dropout as a Bayesian Approximation: Representing Model Uncertainty in Deep Learning", Gal and Ghahramani

<https://arxiv.org/abs/1506.02142>

-> follow up paper:

"What Uncertainties Do We Need in Bayesian Deep Learning for Computer Vision?", Gal and Kendall

<https://arxiv.org/abs/1703.04977>

- consensus: input data to networks has uncertainties and the trained model has an uncertainty (e.g. of classification)

- discussion about whether to use drop-out based techniques to estimate model uncertainty or ensemble techniques (i.e. train multiple models and use this to estimate)

- to illustrate ensemble methods for uncertainty estimation, see "On Calibration of Modern Neural Networks" at <https://arxiv.org/abs/1706.04599>

- Coleman: how to handle the case where I train a model to classify digits (like MNIST) and someone gives me the image of a cat? What is "openmax"?

- "Walter" (please correct if wrong): explains it and showed an jupyter notebook implementation; potentially based on this paper <https://arxiv.org/abs/1511.06233> (please correct if wrong)

- Walter suggests to use arxiv-sanity.org

- Uwe: use ensemble methods (difference between models is simply the random values of the initial weights) works, for details <https://arxiv.org/abs/1612.01474>

Uwe Schmidt:

- - [ICCV 2017 Open Access Repository](<http://openaccess.thecvf.com/ICCV2017.py>)
- - [Turning Corners Into Cameras: Principles and Methods](http://openaccess.thecvf.com/content_ICCV_2017/papers/Bouman_Turning_Corners_Into_ICCV_2017_paper.pdf)
- - [Photographic Image Synthesis With Cascaded Refinement Networks](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/Chen_Photographic_Image_Synthesis_ICCV_2017_paper.pdf)
- - [Mask R-CNN](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/He_Mask_R-CNN_ICCV_2017_paper.pdf) <https://github.com/CharlesShang/FastMaskRCNN>
- - [Active Decision Boundary Annotation With Deep Generative Models](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/Huijser_Active_Decision_Boundary_ICCV_2017_paper.pdf)
- - [Rotation Equivariant Vector Field Networks](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/Marcos_Rotation_Equivariant_Vector_ICCV_2017_paper.pdf)
- - [Learned Watershed: End-To-End Learning of Seeded Segmentation](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/Wolf_Learned_Watershed_End-To-End_ICCV_2017_paper.pdf)
- - [GANs for Biological Image Synthesis](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/Osokin_GANs_for_Biological_ICCV_2017_paper.pdf)

- - [Unpaired Image-To-Image Translation Using Cycle-Consistent Adversarial Networks](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/Zhu_Unpaired_Image-To-Image_Translation_ICCV_2017_paper.pdf)
- - [Multi-Stage Multi-Recursive-Input Fully Convolutional Networks for Neuronal Boundary Detection](file:///Users/uwe/Documents/Research/MPI/talks/2017-11-02%20deep%20club/papers/Shen_Multi-Stage_Multi-Recursive-Input_Fully_ICCV_2017_paper.pdf)