Deep Learning and Optimization

ml essentials
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Google Colab

- https://colab.research.google.com/notebooks/welcome.ipynb
- Sign in with your Google Account
- Download Jupiter Notebooks from GitHub repo
- https://github.com/cc-skuehn/Workshop_Optimizers_Deep_Learning/tree/master/Notebooks
- Open First Notebook in Colab
  - File -> Upload / Open Notebook
  - Optimization_1_Linear_Decision_Boundary.ipynb

Workshop resources

Notebooks

https://github.com/cc-skuehn/Workshop_Optimizers_Deep_Learning

Run Notebooks on

https://colab.research.google.com/

Slides about Deep Learning and Mathematical Optimization

https://www.slideshare.net/StefanKhn4/the-machinery-behind-deep-learning

Good to know

Rectified Adam

https://arxiv.org/pdf/1908.03265.pdf

Lookahead

https://arxiv.org/abs/1907.08610

Super-convergence using cyclical learning rates

https://arxiv.org/pdf/1708.07120.pdf