Tel-Aviv Deep Learning Boot-camp: 12 Applied Deep Learning Labs

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https://www.meetup.com/Tel-Aviv-Deep-Learning-Bootcamp/

We are happy to introduce our full (and Free) Applied Deep course Learning curriculum for **2018**.

Assembling this curriculum required a lot of thought and attention, aiming at using real use cases and corresponding real data sets.

In particular, we foster the use of **Medical Data Sets** (https://grand-challenge.org/All_Challenges/) and predominantly those available (but not only) via **Kaggle**.

The course consists of **12 labs** from which we like **to share the first 5**, and most notably, the labs are geared towards those interested in practical/applied data science rather than theoretical data science. We feel there are a numerous theoretical DL courses while the practical ones are rather scarce.

In terms of DL libraries, we foster the use of **Keras** and **PyTorch** and we hope to alternate between these two in each subsequent class.

This is a provisional curriculum, which is subject to change.

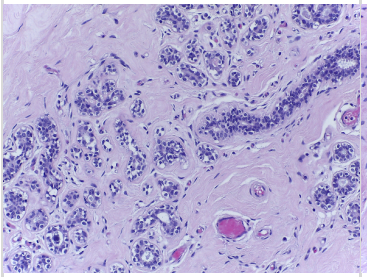
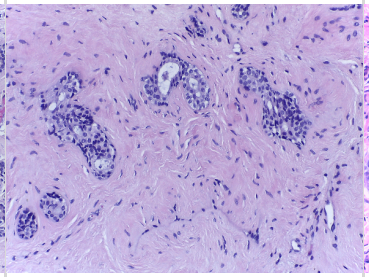
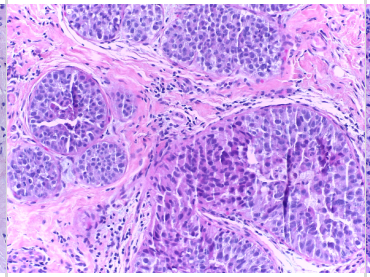
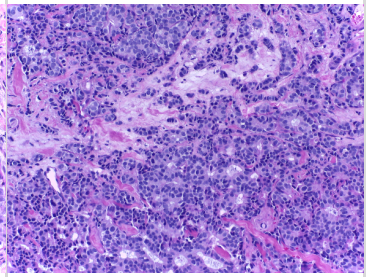
Git: https://github.com/bayesianio/applied-dl-2018

Lab	Title	Difficulty	Library
1 - **Monday**,	**Benign Gland Segmentation**	Not very difficult	PyTorch

https://www.meetup.com/Tel-Aviv-Deep-Learning-Bootcamp/events/245988249/	**(2d CNN's, Cross Validation best practices)**		
2 - April 2018	**Prostate Cancer Segmentation (3d CNN's)**	Moderately Difficult	Keras
3 - May 2018	**Kaggle Data Science Bowel 2018 (2d CNN's)**	Moderately difficult	Keras
4 - May 2018	**Kaggle Toxic Comment Identification (Advanced NLP)**	Difficult	PyTorch
5- June 2018	**Pediatric Bone Age Challenge (CNN's)**	Very Difficult	Keras + PyTorch

Applied Deep Learning curriculum:

Lab 1: MICCAI 2015 Benign Gland Segmentation Challenge (PyTorch)

			
Normal	Benign	in situ carcinoma	Invasive carcinoma

- About the MICCAI 2015 Benign Gland Segmentation Challenge
- Basics of Telegram bots
- Creating a bot in Python
- Training a CNN in Pytorch

- Persisting the CNN model and consuming it in Python

- Uploading a Gland Image into Telegram

- Running Inference on the unseen Gland Image

Shlomo Kashani, Head of AI at www.bayesian.io

Nathaniel Shimoni, Senior Data Scientist at www.grid4c.com

Requirements:

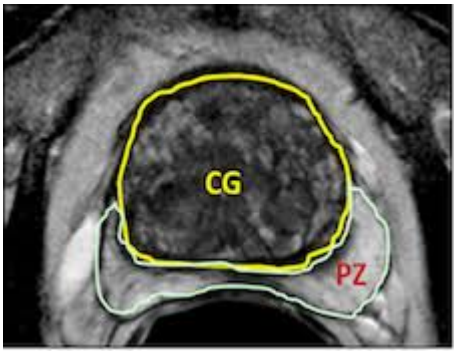
- Python 3.5, CUDA 9, cuDNN 7, PyTorch 2.0 or above, Keras 2 or above

- Download: https://warwick.ac.uk/fac/sci/dcs/research/tia/glascontest/

Date and Location:

- **Monday**, **March 26, 2018, 6:00 PM to 9:00 PM, Google Campus**

Lab 2: MICCAI Prostate Cancer MRI Segmentation 2012 Challenge (Keras)



- About the Challenge

Yam Peleg, Head of AI at www.deeptrading.com

Shlomo Kashani, Head of AI at www.bayesian.io

Nathaniel Shimoni, Senior Data Scientist at www.grid4c.com

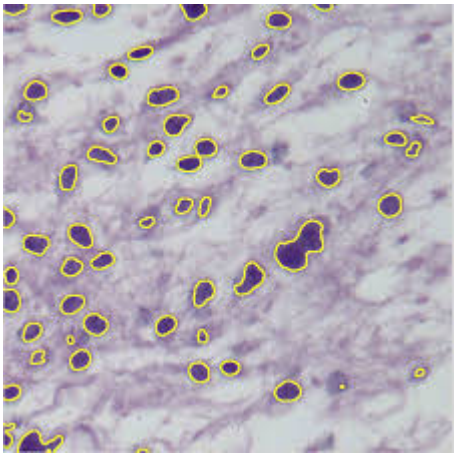
Requirements:

- Download: https://promise12.grand-challenge.org/

Date and Location

- April 2018

Lab 3: Kaggle 2018 Data Science Bowl (Keras)



Nathaniel Shimoni nathaniel.shimoni@grid4c.com

Requirements:

- Python 3.5, CUDA 9, cuDNN 7, PyTorch 2.0 or above, Keras 2 or above

- Download: https://www.kaggle.com/c/data-science-bowl-2018/data

Date and Location:

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Shlomo Kashani, Head of AI at www.bayesian.io

Nathaniel Shimoni, Senior Data Scientist at www.grid4c.com

Requirements:

- Python 3.5, CUDA 9, cuDNN 7, PyTorch 2.0 or above, Keras 2 or above

- Download: https://www.kaggle.com/c/jigsaw-toxic-comment-classification-challenge/data

Date and Location:

Natan Katz.

Requirements:

- Python 3.5, CUDA 9, cuDNN 7, PyTorch 2.0 or above, Keras 2 or above

- Download: http://rsnachallenges.cloudapp.net/competitions/4#learn_the_details-news

Date and Location: