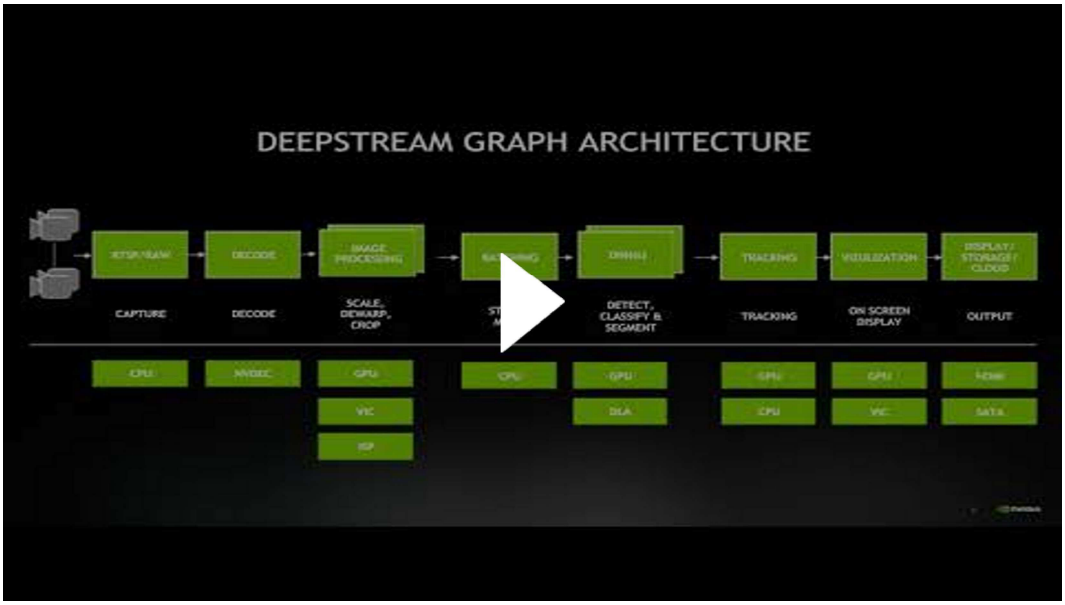
Links

Dienstag, 3. März 2020 12:47

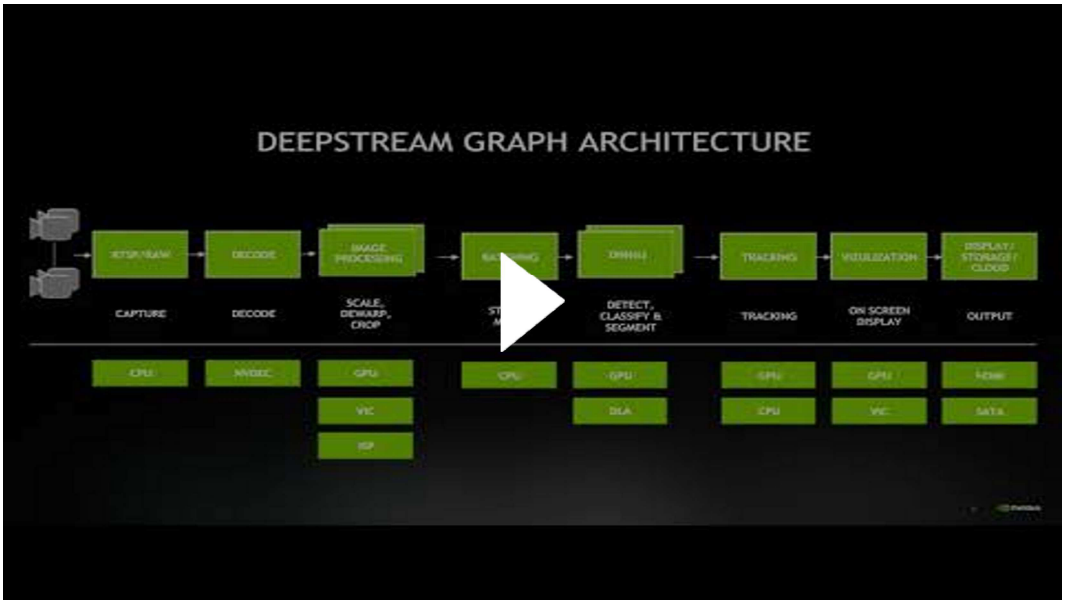
- Getting started with AI
  - [x] https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit#next
  - [x] https://courses.nvidia.com/courses/course-v1:DLI+C-RX-02+V1/about
  - [ ] https://github.com/dusty-nv/jetson-inference
  - [ ] https://www.digikey.co.th/en/maker/projects/nvidia-jetson-nano-part-2-image-classification-with-machine-learning/33f1faf4e6d44d3cb6d3340fd42390ea
  - [ ] Labeling: https://github.com/wkentaro/labelme
  - [ ] Labeling: http://www.robots.ox.ac.uk/~vgg/software/via/

- Segmentation:
  - DeepStream SDK — Accelerating Real Time AI Based Video and Image Analytics (vor allem 00:26:00 Qualitätsinspektion)
  - 

  - https://courses.nvidia.com/courses/course-v1:DLI+L-FX-04+V1/about
  - https://devblogs.nvidia.com/image-segmentation-using-digits-5/
  - https://github.com/nvidia/digits
  - https://developer.nvidia.com/digits
  - NVIDIA. (2019). Automatic Defect Inspection Using the NVIDIA End-to-End Deep Learning Platform, (October).
  - Datenset: http://resources.mpi-inf.mpg.de/conferences/dagm/2007/prizes.html
  - https://ngc.nvidia.com/catalog/model-scripts/nvidia:unet_industrial_for_tensorflow
  - https://github.com/divamgupta/image-segmentation-keras
  - https://hackernoon.com/how-to-run-object-detection-and-segmentation-on-a-video-fast-for-free-d3291076af76
  - https://github.com/NVIDIA/TensorRT/tree/master/samples/opensource/sampleUffMaskRCNN

- Nvidia GPU Cloud
  - https://docs.nvidia.com/ngc/ngc-getting-started-guide/index.html

- Transfer Learning:
  - https://docs.nvidia.com/metropolis/TLT/tlt-getting-started-guide/index.html
  - https://devblogs.nvidia.com/accelerating-video-analytics-tlt/
  - https://towardsdatascience.com/transfer-learning-vs-training-from-scratch-in-keras-a7f92fb97dca
  - https://medium.com/dataseries/build-and-deploy-accurate-deep-learning-models-for-intelligent-image-and-video-analytics-8ad755213c06
  - https://github.com/NVIDIA/DIGITS/tree/master/examples/semantic-segmentation
  - https://github.com/dusty-nv/jetson-inference/blob/master/docs/segnet-pretrained.md
  - https://github.com/dusty-nv/jetson-inference/blob/master/docs/imagenet-training.md
  - https://github.com/NirmalElamon/UNet-model-for-Segmentation
  - https://devblogs.nvidia.com/image-segmentation-using-digits-5/
  - https://github.com/dusty-nv/jetson-inference/blob/master/docs/segnet-training.md
  - https://github.com/divamgupta/image-segmentation-keras
  - https://skorch.readthedocs.io/en/stable/user/tutorials.html
  - https://www.novatec-gmbh.de/blog/semantic-segmentation-part-3-transfer-learning/
  - https://engineering.matterport.com/splash-of-color-instance-segmentation-with-mask-r-cnn-and-tensorflow-7c761e238b46
  - ☑ https://github.com/matterport/Mask_RCNN

- DeepStream Tutorial:
  - DeepStream SDK — Accelerating Real Time AI Based Video and Image Analytics (vor allem 00:26:00 Qualitätsinspektion)
  - 

  - Getting Started with Deepstream : https://courses.nvidia.com/courses/course-v1:DLI+C-IV-02+V1/
  - Download Deepstream: https://docs.nvidia.com/metropolis/deepstream/4.0/dev-guide/index.html
  - https://info.nvidia.com/deepstream-sdk4-webinar-reg-page.html?ondemandrgt=yes
  - https://info.nvidia.com/deepstream-to-improve-video-analytics-reg-page.html?ondemandrgt=yes

- Anomaly Detection:
  - https://github.com/NVIDIA-AI-IOT/deepstream_reference_apps/blob/master/anomaly/README.md

https://towardsdatascience.com/machine-learning-for-anomaly-detection-and-condition-monitoring-d4614e7de770

-https://towardsdatascience.com/anomaly-detection-with-time-series-forecasting-c34c6d04b24a

- Klassifikation:
  - Tensorflow, YOLO, etc.

- Multi-Camera.
  - https://developer.nvidia.com/embedded/community/ecosystem#machine_vis_cam_sens
  - https://devblogs.nvidia.com/multi-camera-large-scale-iva-deepstream-sdk/
  - https://www.arducam.com/multi-camera-solutions-for-nvidia-jetson-nano/
  - https://devtalk.nvidia.com/default/topic/1058334/deepstream-sdk/deepstream4-jetson-nano-multiple-webcams-issue/
  - https://devtalk.nvidia.com/default/topic/1027100
  - https://elinux.org/Jetson/Cameras#Multiple_cameras
  - https://elinux.org/Jetson_Nano
  - https://github.com/NVIDIA-AI-IOT/jetcam
  - https://github.com/opendatacam/opendatacam