Assignments (by next weekend (except learning Pytorch)?)

All	Learn Pytorch (https://pytorch.org/tutorials/beginner/deep_learning_60min_blitz.html) (https://github.com/ShusenTang/Dive-into-DL-PyTorch)
Ziyi Gong	Refine the model with Kovashka
Sijia Rong	Investigate Human Actions and Scenes Dataset: data structure, policies for using, arrangements, etc. MPII Movie Description Dataset
Xingchen Zhao	OpenPose https://www.kaggle.com/c/youtube8m-2019/overview
Haoyue Cui	Investigate YouTube-8M Segments Dataset: data structure, policies for using, arrangements, etc. https://www.kaggle.com/c/youtube8m-2019/overview

Proposal

Resources:

- What have others attempted in this space, i.e. what is the relevant literature?
  - learning individual styles of conversational gesture: https://arxiv.org/pdf/1906.04160.pdf
  - Generation of Character Illustrations from Stick Figures Using a Modification of Generative Adversarial Network: https://ieeexplore.ieee.org/document/8377853
  - Retrieval and Visualization of Human Motion Data via Stick Figures: https://onlinelibrary.wiley.com/doi/full/10.1111/j.1467-8659.2012.03198.x
  - Video Generation From Text: https://arxiv.org/pdf/1710.00421.pdf
  - IRC-GAN: Introspective Recurrent Convolutional GAN for Text-to-video Generation: https://www.ijcai.org/Proceedings/2019/0307.pdf

    - VideoFlow: A Flow-Based Generative Model for Video: https://arxiv.org/pdf/1903.01434.pdf
- Entropy (reasonable captions)
    - NLP progress: http://nlpprogress.com/english/language_modeling.html
    - https://arxiv.org/pdf/1906.01965.pdf
    - Knowledge graph: correlation between variables and more often used in search engine
    - Machine translation:
        - BLEU : https://towardsdatascience.com/evaluating-text-output-in-nlp-bleu-at-your-own-risk-e8609665a213
        - NIST, based on BLEU, weighting the penalty for mis-matched n-grams: http://www.mt-archive.info/HLT-2002-Doddington.pdf
        - parsing(STM or subtree metric): https://www.aclweb.org/anthology/W05-0904/
        - Rough F1 score in headline generation
        - MoS model???
    - Automated Scoring: https://www.aclweb.org/anthology/C18-1094.pdf
    - Attention score:
    - Nlg-eval https://github.com/Maluuba/nlg-eval 包括
        - BLEU
        - METEOR
        - ROUGE
        - CIDEr
        - ...
- Progressive GAN
    - Progressive Growing Of Gans For Improved Quality, Stability, And Variation: https://arxiv.org/pdf/1710.10196.pdf
    - https://pytorch.org/hub/facebookresearch_pytorch-gan-zoo_pgan/
- CGAN & CPGGAN
    - https://arxiv.org/pdf/1411.1784.pdf
    - https://arxiv.org/pdf/1902.09856.pdf
- StoryGan
    - https://zpascal.net/cvpr2019/Li_StoryGAN_A_Sequential_Conditional_GAN_for_Story_Visualization_CVPR_2019_paper.pdf
    - https://arxiv.org/pdf/1812.02784.pdf
- Inception Score & Frechet Inception Distance
    - https://arxiv.org/pdf/1810.02419.pdf

2 Presentation

1. How well did the authors (presenters) explain what problem they are trying to solve?
2. How well did they explain why this problem is important?
3. How well did they explain why the problem is challenging?
4. How thorough was the literature review?
    a. Review GAN,
    b.
5. How clearly was prior work described?
6. How well did the authors explain how their proposed work is different than prior work?
    1) How we adapt prior works such as GAN to our problem
    2) People's gesture
    3) learning individual styles of conversational gesture: https://arxiv.org/pdf/1906.04160.pdf **Movement only, no storytelling**
7. How clearly did the authors describe their proposed approach?
8. How novel is the proposed approach?
9. How challenging and ambitious is the proposed approach? (1-10)
    a. **Randomly generate** visual stories, instead of from some given information such as labels, or captions