Deep Learning Track

how what where when why

Motivation

- biggest breakthroughs in AI due to deep learning:
  - self-driving cars (computer vision)
  - IBM Watson
  - AlphaGo
  - speech recognition (Now, Siri, youtube subtitles)
  - image annotation & classification
  - ...
- came after AI bachelor
- "software that writes software"
  -> replaces many existing AI algorithms
- ...

Expectations

- general popular machine learning techniques
- interesting similarities with human brain
- practical experience ("hacking with DL"),
  apply at home projects
- I know the theory; now want practical experience

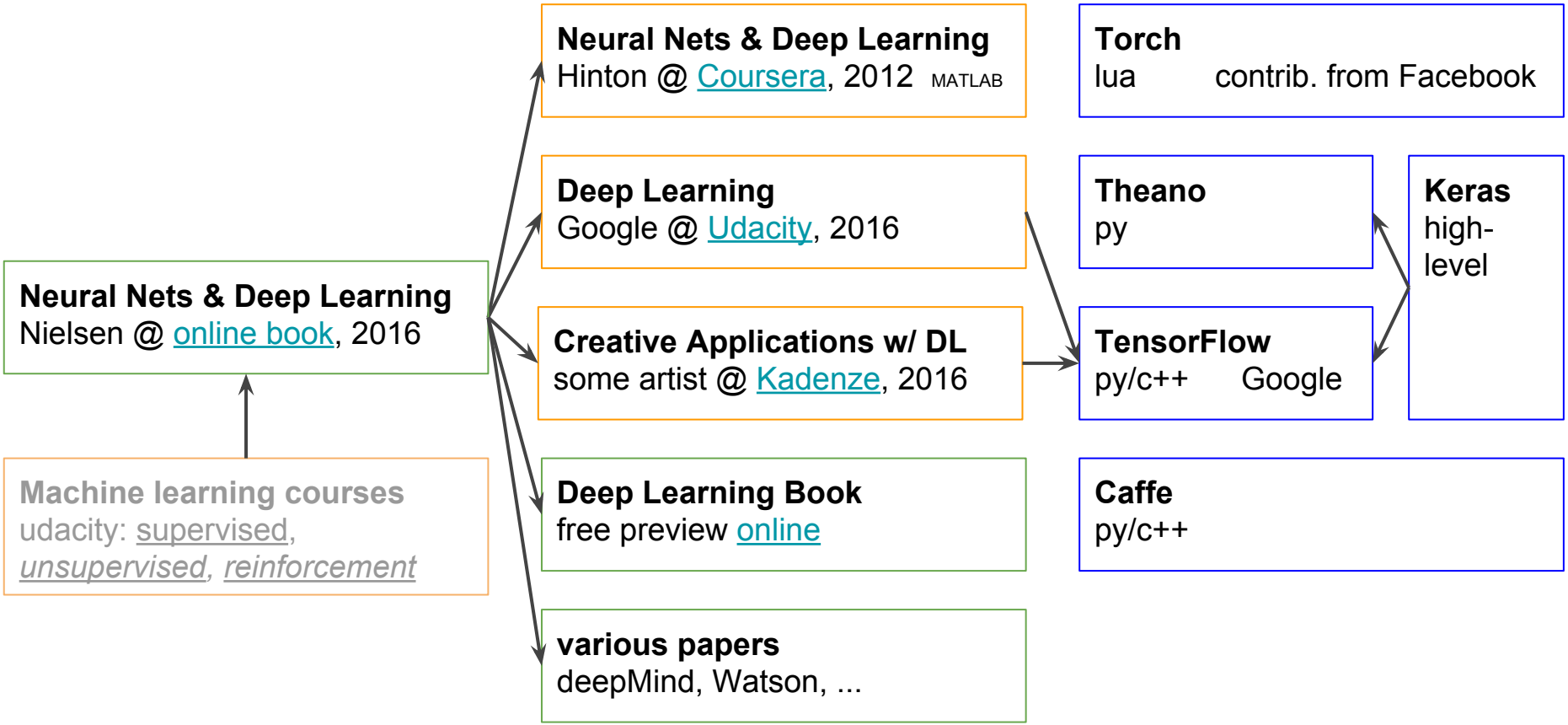
Practical setup

Ideas:

- evening (2h) every other week
- homework; optional weekend hackday
- rotating person preparing evening
- open communication:
  - share code, resources, ideas etc on github
  - document learning curve (for others)

Study Material (choose)

readings
courses
software



Intro talk

- AI history + DL intro, Horowitz talk [2016] https://vimeo.com/170189199
- intro talk, Hinton, 60min [2007] https://www.youtube.com/watch?v=AyzOUbkUf3M
- intro talk, Hinton, 20min [2016] https://www.youtube.com/watch?v=l2dVjADTEDU
- intro videos concepts & libraries https://www.youtube.com/channel/UC9OeZkIwhzfv-_Cb7fCikLQ/playlists