1. Basic blog articles

- [Deep Reinforcement Learning: Pong from Pixels](), Andrej Karpathy's blog post on DRL.
- [Deep Reinforcement Learning Doesn't Work Yet](), undergraduate now at Google.

2. Serious tutorials

- [Deep Reinforcement Learning, Decision Making, and Control](), ICML 2017 tutorials, Berkeley.
- [Deep Reinforcement Learning through Policy Optimization](), with an emphasis on policy gradient/optimization, Berkeley.
- [Deep Reinforcement Learning](), ICML 2016 tutorials, David Silver, DeepMind.

3. Basic application in NLP

3.1. RL for structured prediction

- [Reward augmented maximum likelihood for neural structured prediction](), NIPS 2016.
- [SeqGAN: Sequence Generative Adversarial Nets with Policy Gradient](), AAAI 2017.
- [An Actor-Critic Algorithm for Sequence Prediction](), ICLR 2016.
- [Self-critical sequence training for image captioning](), CVPR 2017.
- [Decoding with Value Networks for Neural Machine Translation](), NIPS 2017.

3.2. Learning to search (exposure bias)

- [Sequence-to-sequence learning as beam-search optimization](), EMNLP 2016.
- [Professor forcing: a new algorithm for training recurrent networks](), NIPS 2016.
- [SEARNN: Training RNNs with global-local losses](), ICLR 2018.

3.3. Misc.

- [Sequence Tutor: Conservative Fine-Tuning of Sequence Generation Models with KL-control](), ICML 2017.
- [Seq2SQL: enerating Structured Queries From Natural Language Using Reinforcement Learning](), ICLR 2018, **reject**.
- [Maximum Margin Reward Networks for Learning from Explicit and Implicit Supervision](), EMNLP 2018.