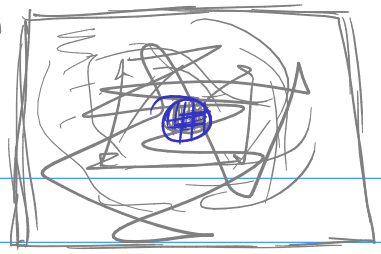
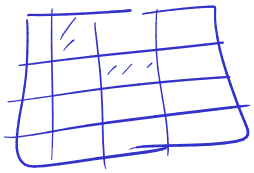
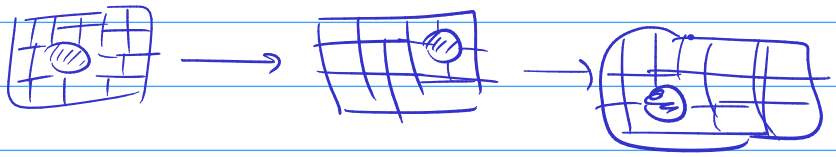
Saccades

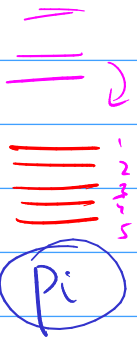




SVHN

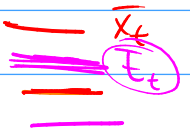
glimpses





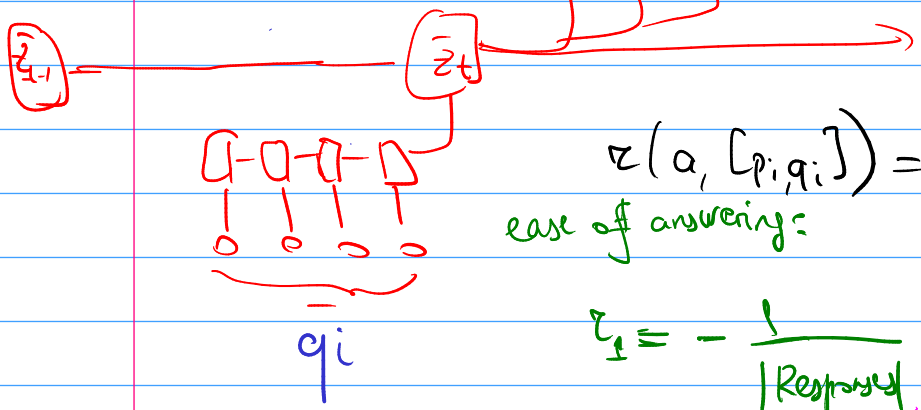
BLEU
ROUGE
METEOR

OpenSubtitles
Ubuntu



BLEU vs Human 0,05 – 0.05

Human vs Human ~0.95



$$r(a, [p_i, q_i]) = \lambda_1 r_1 + \lambda_2 r_2 + \lambda_3 r_3$$

ease of answering:

$$r_1 = -\frac{1}{|\text{Responses}|} \cdot \sum_{q \in \text{Responses}} \frac{1}{|q|} \cdot \log p_\theta(q \mid a)$$

"I don't know"

NAS
neural
architecture
search

Quoc Le

Swish
EfficientNet
EfficientDet

information flow: $p_i \neq a \rightarrow \ldots$

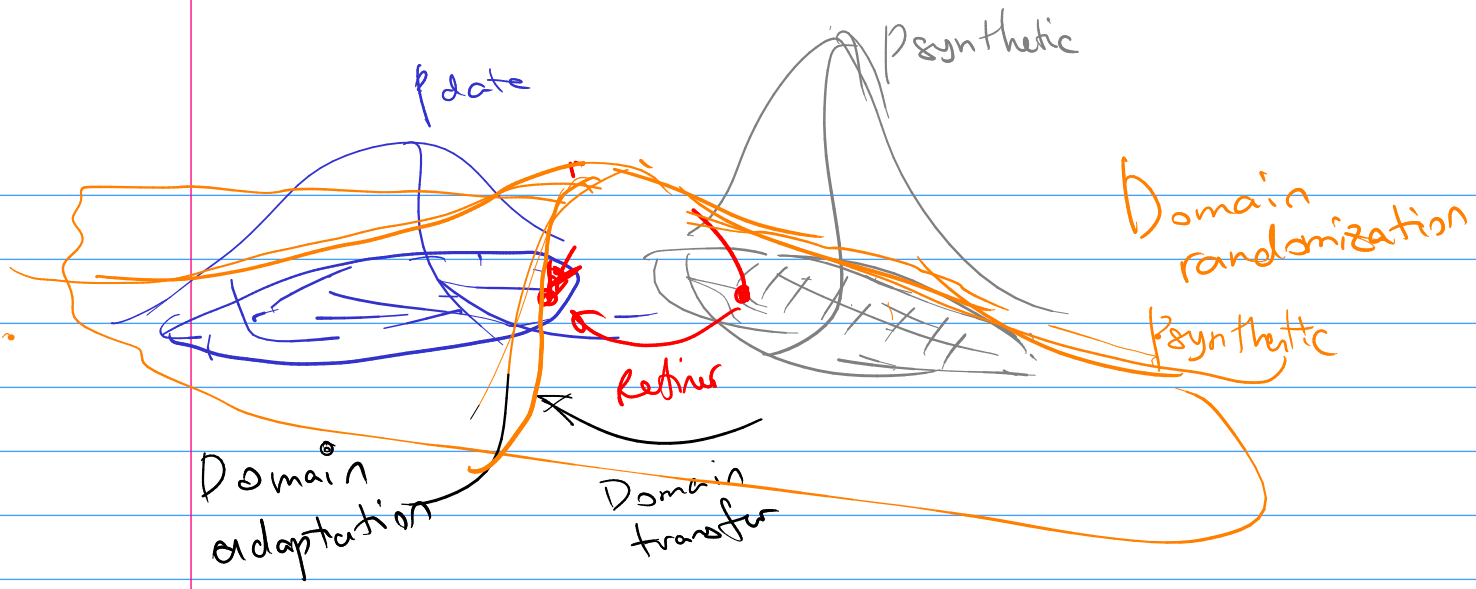
$$r_2 = -\log \cos(h_\theta(a), h_\theta(p_i))$$

semantic coherence:

$$r_3 = \frac{1}{|a|} \log p_\theta(a \mid q_i, p_i) + \frac{1}{|q_i|} \log p_{\theta'}(q_i \mid a)$$

backwards

MuJoCo



$$r = \bar{\varphi}^\top \bar{w}$$

$$Q_\pi(s,a) = \bar{w}^\top \mathbb{E}_\pi\left[\sum \gamma^{i-t} \bar{\varphi}_{i+1} \mid S_t = s, A_t = a\right]$$

$$Q_\pi(s,a) = \bar{w}^\top \bar{\psi}_\pi$$

Successor features