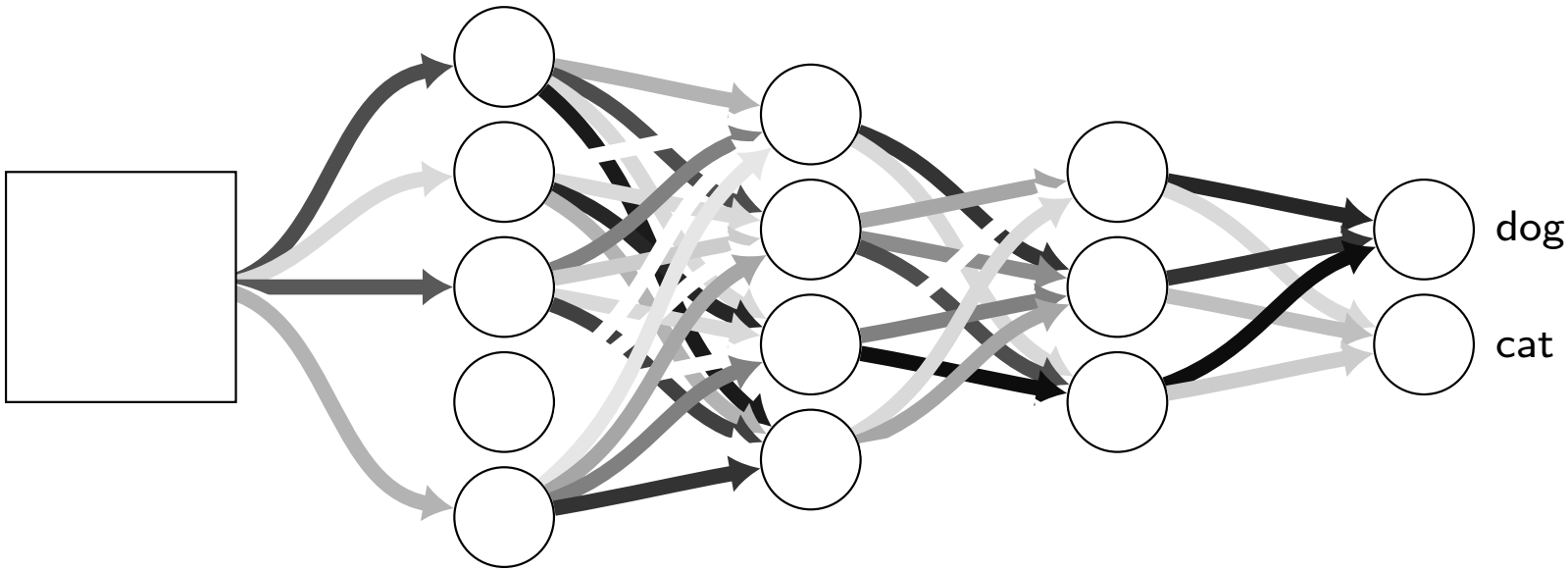
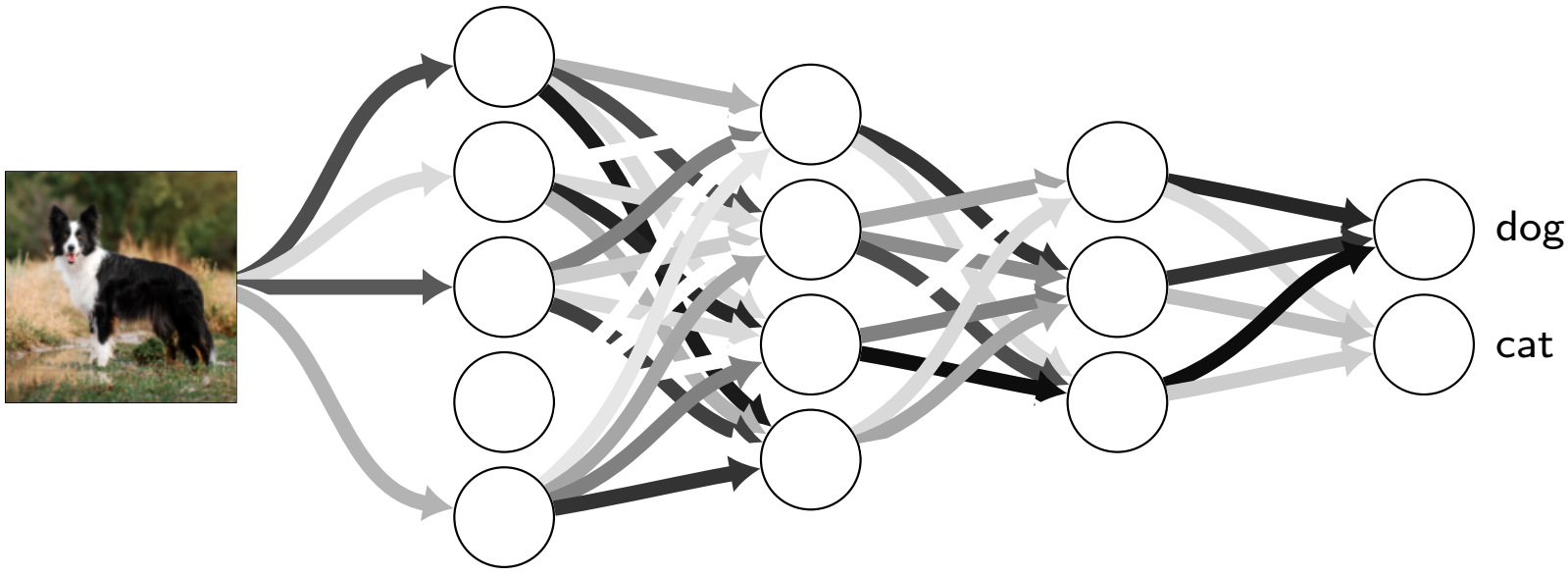
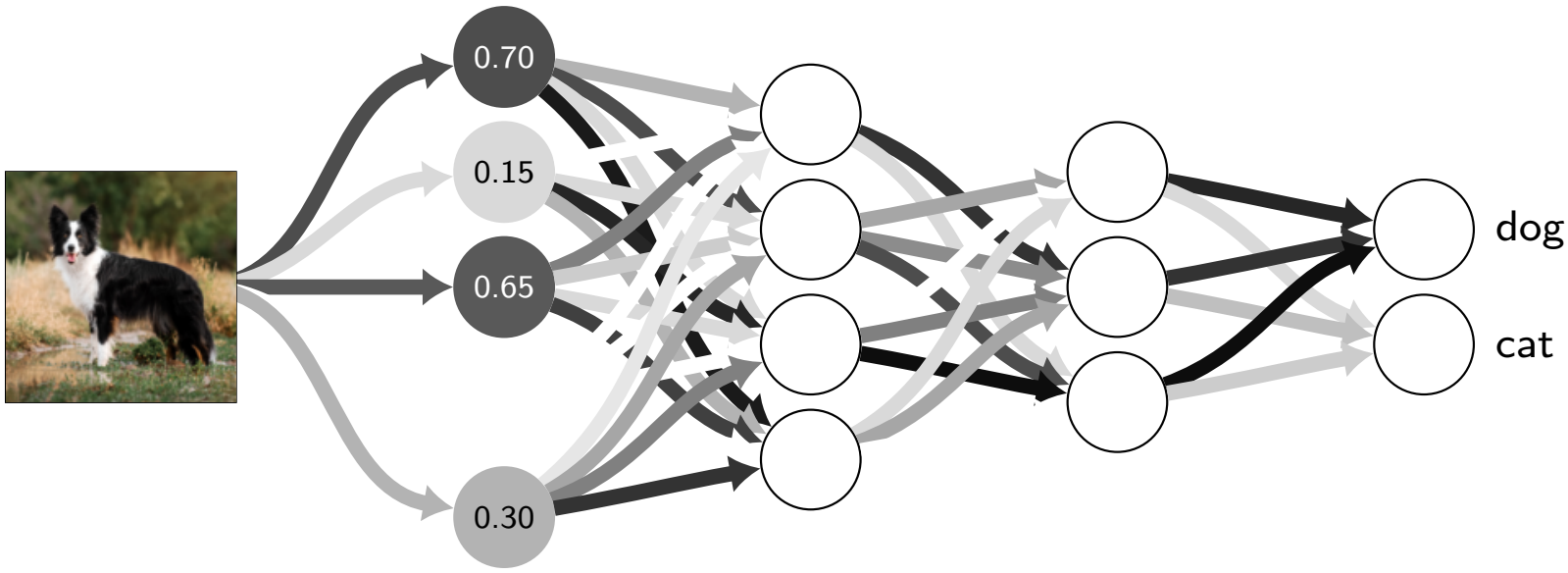
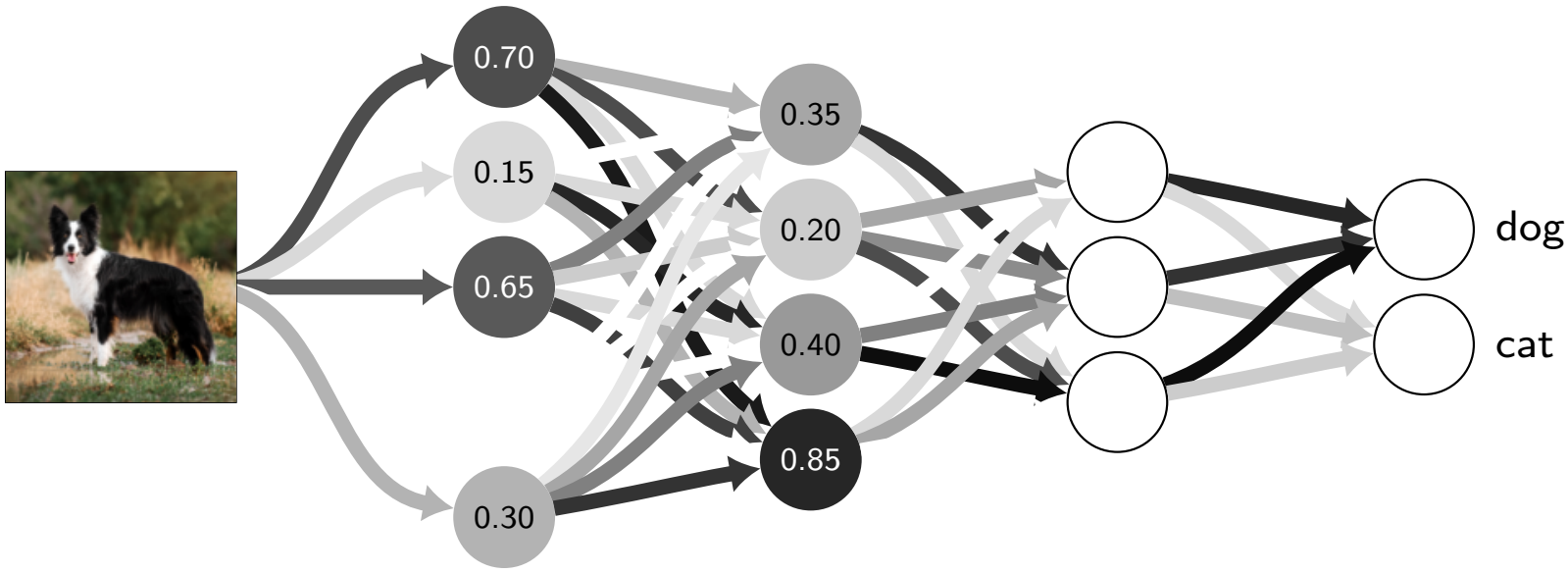
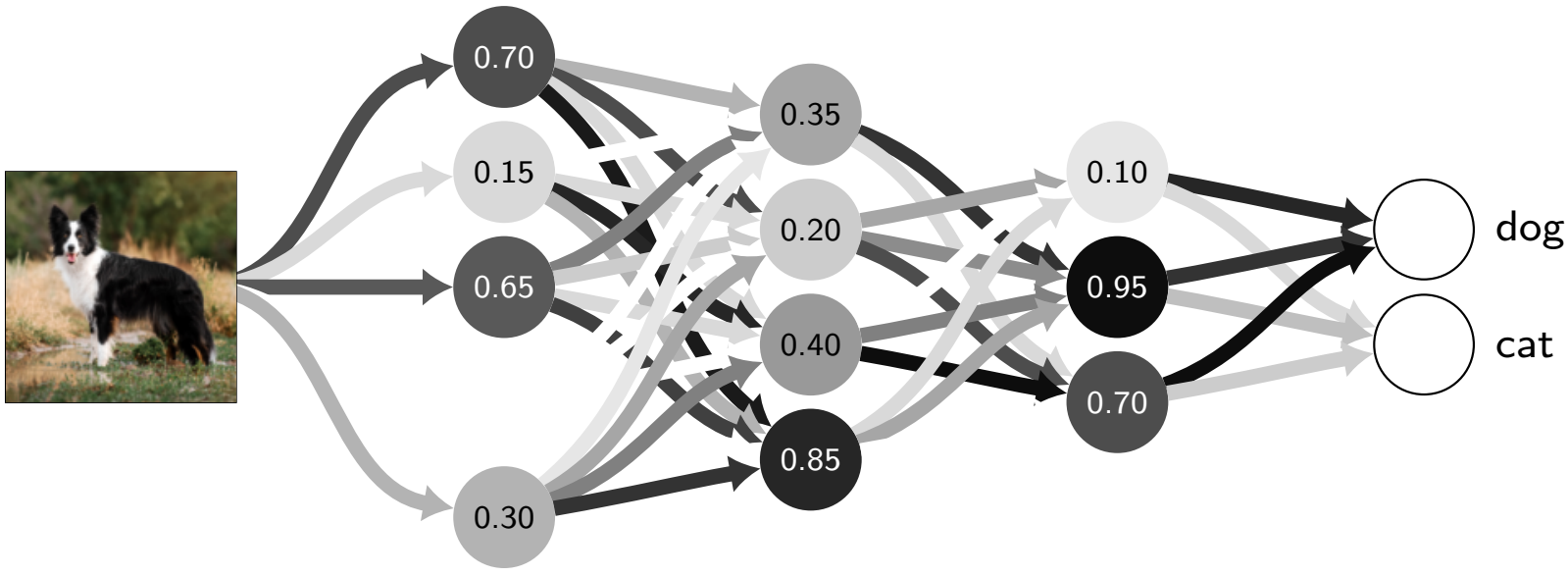


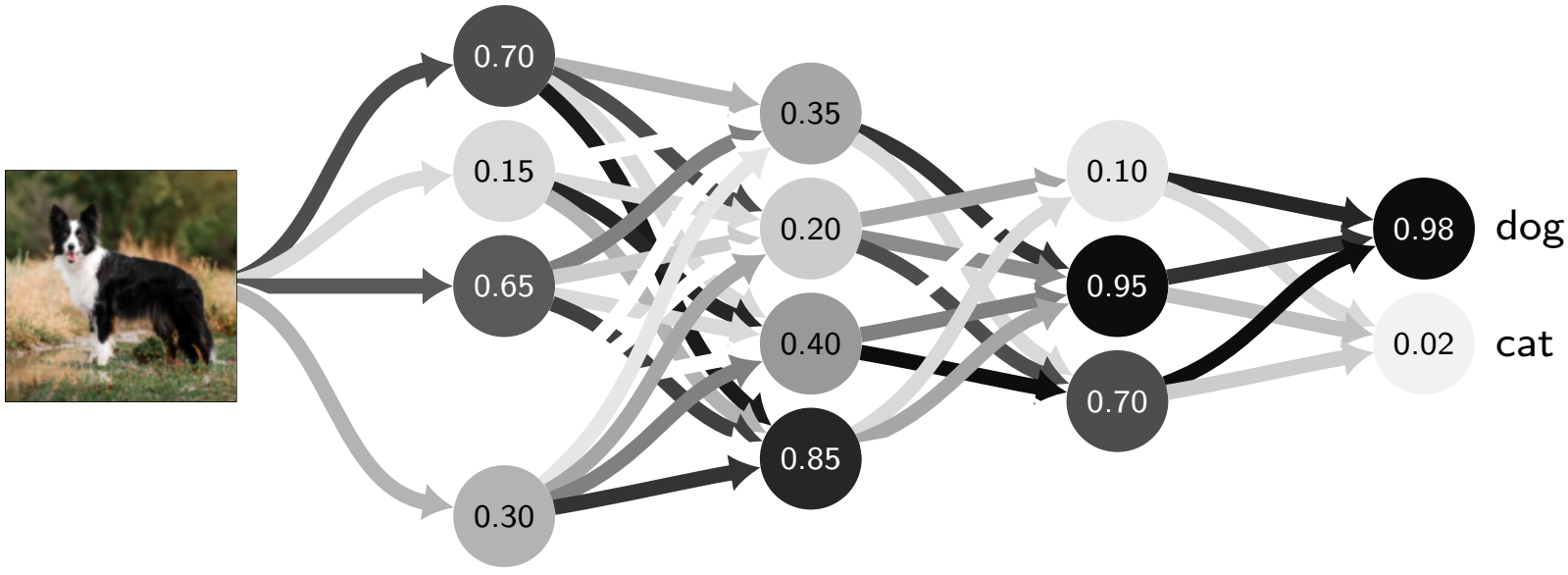
Imagenet-trained VGG19[1]


dog
cat


0.70
0.15
0.65
0.30
dog
cat


0.70
0.15
0.65
0.30
0.35
0.20
0.40
0.85
dog
cat


0.70
0.15
0.65
0.30
0.35
0.20
0.40
0.85
0.10
0.95
0.70
dog
cat

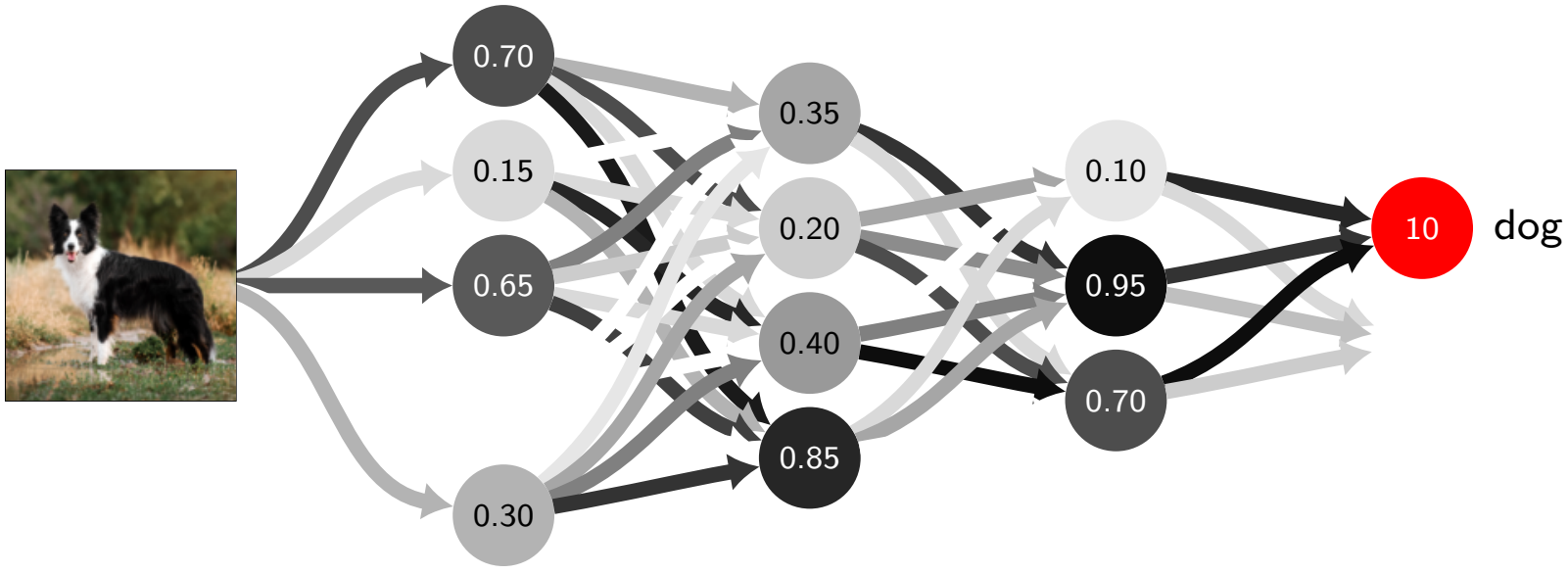

0.70
0.15
0.65
0.30
0.35
0.20
0.40
0.85
0.10
0.95
0.70
0.98
dog
0.02
cat

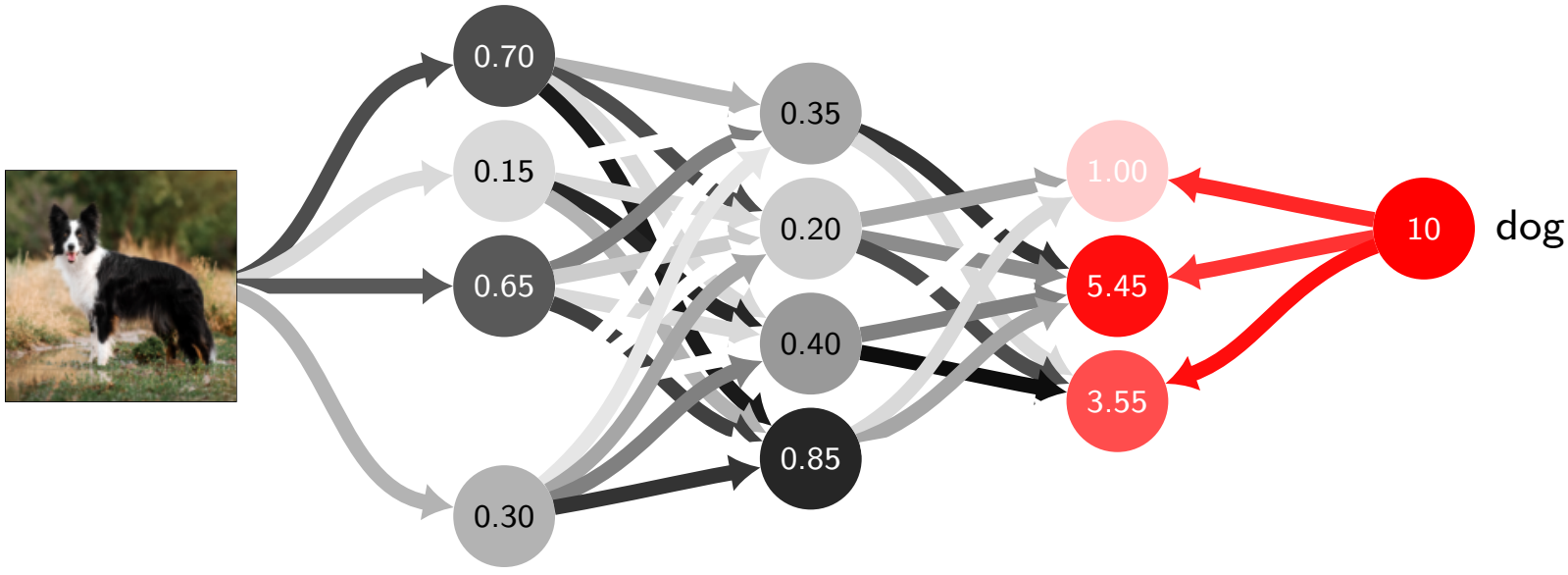
$$\text{LRP}^2\text{:} \quad R_j^l = \sum_k \frac{a_j w_{jk}}{\sum_{0,j} a_j w_{jk}} R_k^{(l+1)}$$

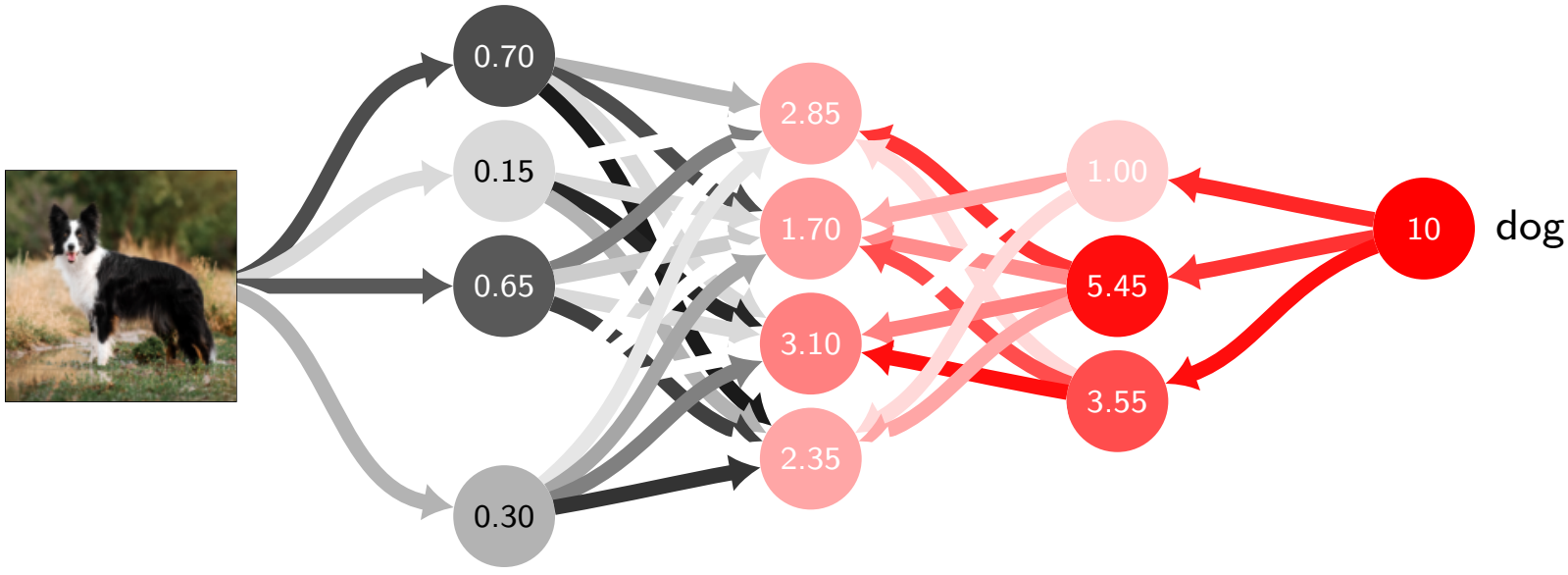
LRP-0:
$$R_j^l = \sum_k \frac{a_j w_{jk}}{\sum_{0,j} a_j w_{jk}} R_k^{(l+1)}$$

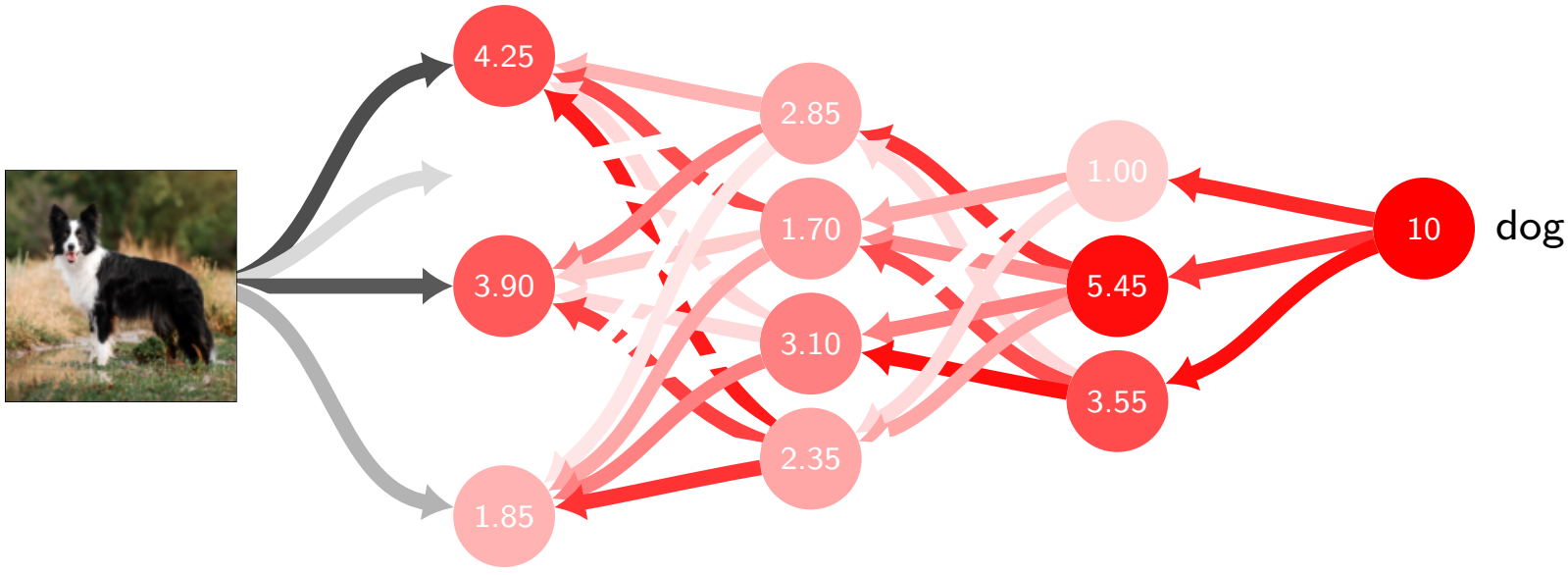
LRP-ϵ:
$$R_j^l = \sum_k \frac{a_j w_{jk}}{\sum_{0,j} a_j w_{jk} + sign(a_j w_{jk}) * \epsilon} R_k^{(l+1)}$$

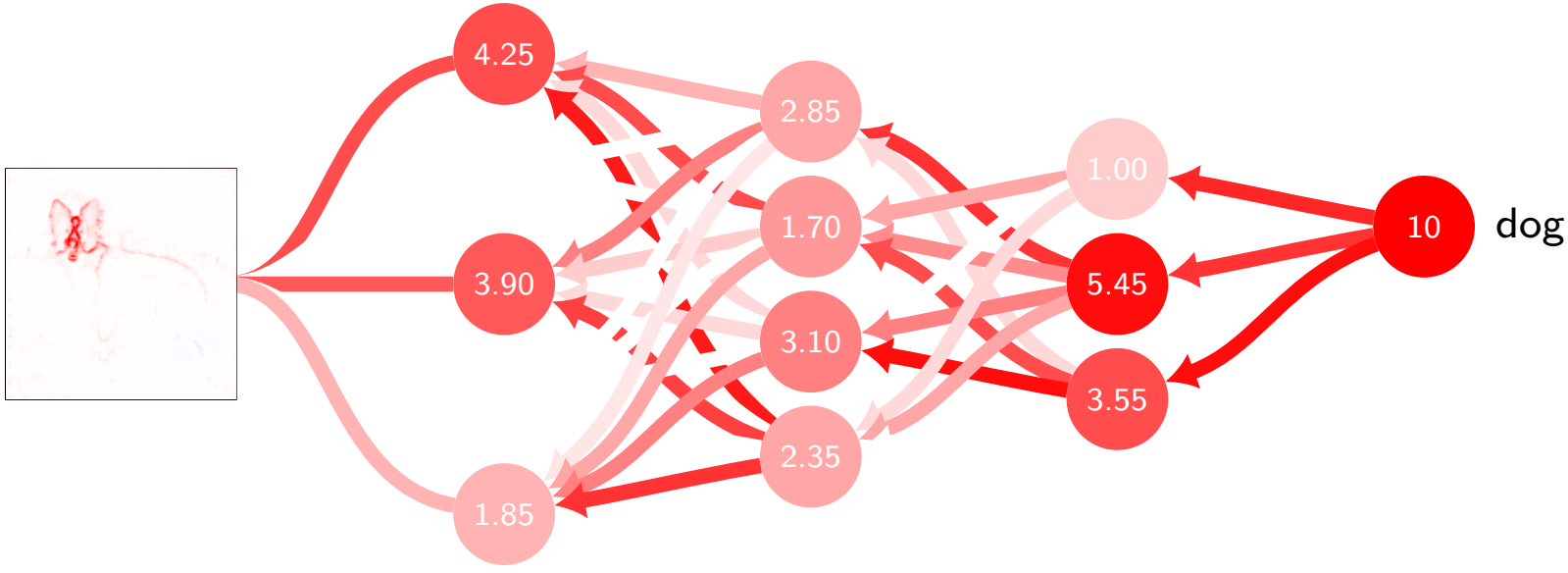
LRP-$\alpha\beta$:
$$R_j^l = \sum_k \alpha \frac{a_j w_{jk}^+}{\sum_{0,j} a_j w_{jk}} - \beta \frac{a_j w_{jk}^-}{\sum_{0,j} a_j w_{jk}} R_k^{(l+1)}$$

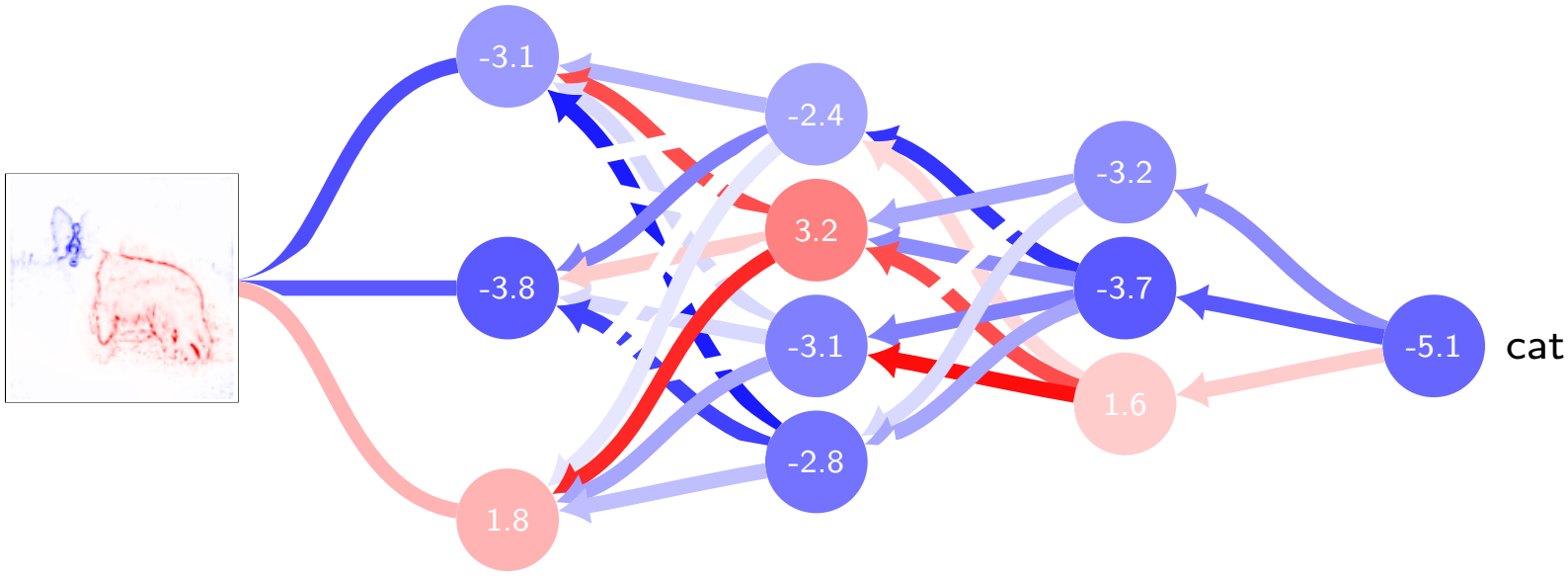

0.70
0.15
0.65
0.30
0.35
0.20
0.40
0.85
0.10
0.95
0.70
10
dog

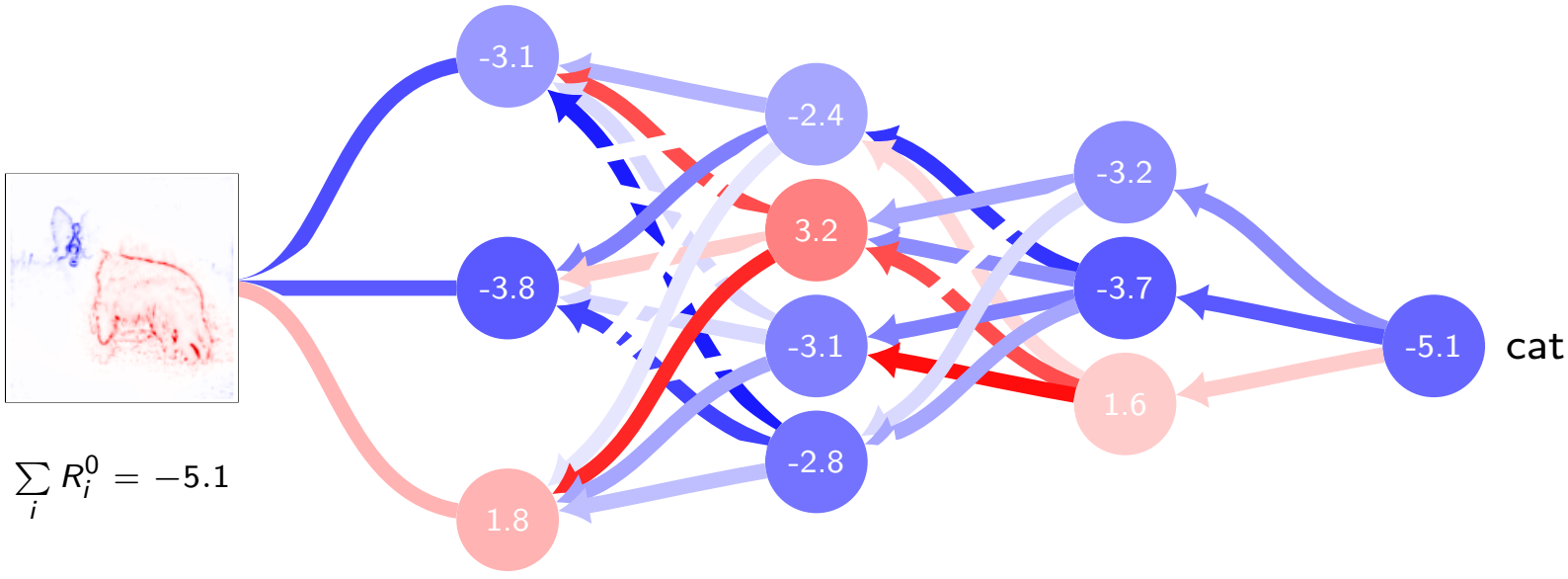

0.70
0.15
0.65
0.30
0.35
0.20
0.40
0.85
1.00
5.45
3.55
10
dog


0.70
0.15
0.65
0.30
2.85
1.70
3.10
2.35
1.00
5.45
3.55
10
dog

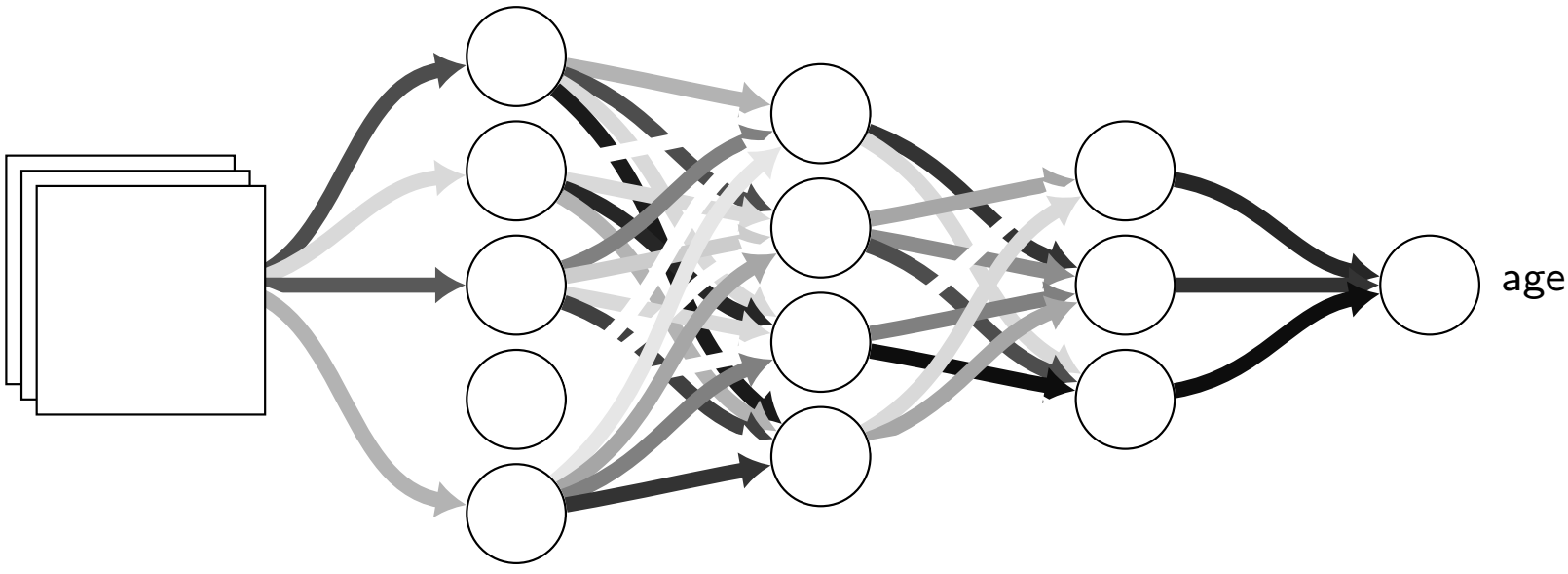

4.25
3.90
1.85
2.85
1.70
3.10
2.35
1.00
5.45
3.55
10
dog


4.25
3.90
1.85
2.85
1.70
3.10
2.35
1.00
5.45
3.55
10
dog

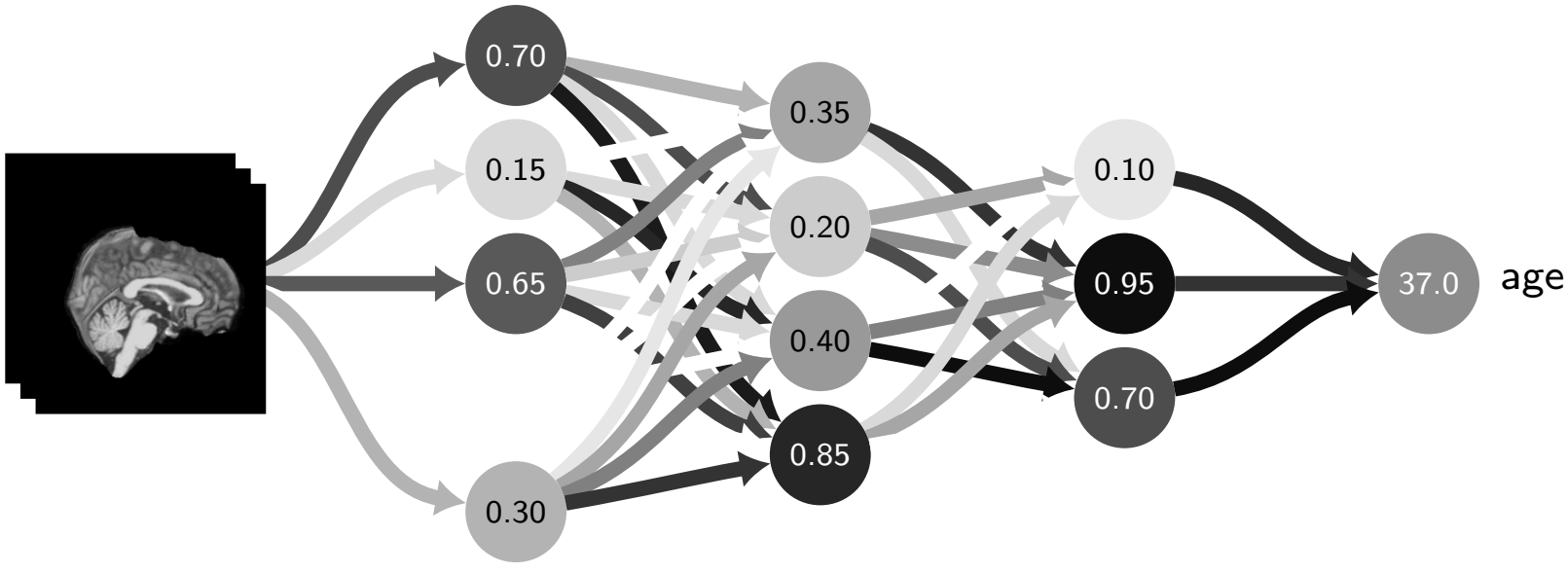

-3.1
-3.8
1.8
-2.4
3.2
-3.1
-2.8
-3.2
-3.7
1.6
-5.1
cat

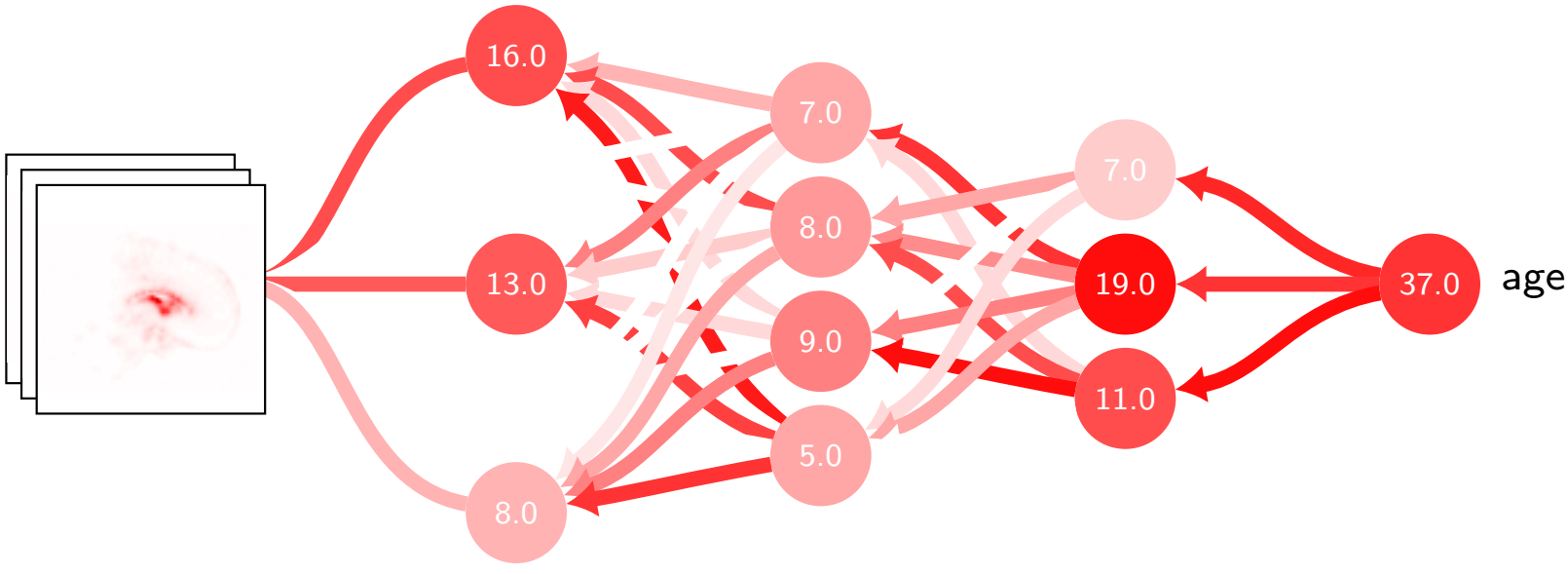


$\sum_i R_i^0 = -5.1$



Brain age SFCN[3]


0.70
0.15
0.65
0.30
0.35
0.20
0.40
0.85
0.10
0.95
0.70
37.0
age


16.0
13.0
8.0
7.0
8.0
9.0
5.0
7.0
19.0
11.0
37.0
age