Feed-forward neural network

$$l = \underset{i}{\text{mean}}\left(\sqrt{(y_i - \tilde{y}_i)^2}\right)$$

: 1

mean square error

loss function

$\tilde{\mathbf{y}} = \mathbf{W}\mathbf{z}'$

: 1

third layer

5

W

: $D \times 1$

$\mathbf{z}' = \sigma(\mathbf{V}\mathbf{z})$

: D

second layer

4

$\mathbf{V}\mathbf{z}$

: D

3

V

: $D \times D$

$\mathbf{z} = \sigma(\mathbf{U}\mathbf{x})$

: D

first layer

2

$\mathbf{U}\mathbf{x}$

: D

1

U

: $1 \times D$

x

: 1

calculation

: *shape*

layers

sublayers

model parameters