Machine Learning Workshop 2

Variational Autoencoder

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Outline

Autoencoder

autoencoder

Anomaly detection

Algorithm 1 Pseudocode for Batch Gradient Descent

Require: Learning rate ϵ_k

Require: Initial parameter $\boldsymbol{w}_0$

Require: Number of epochs T

  for $i = 1$ to T **do**

    Compute gradient $\boldsymbol{g}_t = \frac{1}{m} \nabla_w \sum_i L(h_{w_{t-1}}(\boldsymbol{x}^{(i)}), \boldsymbol{y}^{(i)})$

    Apply update: $\boldsymbol{w}_t = \boldsymbol{w}_{t-1} - \epsilon \boldsymbol{g}_t$

  end for

Anomaly detection

```
import numpy
def forward():
    # fjdksjfksjfkls
```