Report Title

Your Name here

November 8, 2017

Contents

1 Introduction

This is the first section.

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Etiam lobortisfacilisis sem. Nullam nec mi et neque pharetra sollicitudin. Praesent imperdietmi nec ante. [Alur, 2015] Donec ullamcorper, felis non sodales...

2 Second Section

2.1 image

As you can see in the figure 2.6,Lorem ipsum dolor sit amet, consectetuer adipiscing

2.2 unordered lists

- The individual entries are indicated with a black dot, a so-called bullet.
- The text in the entries may be of any length.

Figure 1: test

2.3 math

$$E = mc^2$$

Subscripts in math mode are written as a_b and superscripts are written as a^b. These can be combined an nested to write expressions such as

$$T^{i_1 i_2 \ldots i_p}_{j_1 j_2 \ldots j_q} = T(x^{i_1}, \ldots, x^{i_p}, e_{j_1}, \ldots, e_{j_q})$$

We write integrals using $\int$ and fractions using $\frac{a}{b}$. Limits are placed on integrals using superscripts and subscripts:

$$\int_0^1 \frac{1}{e^x} = \frac{e-1}{e}$$

Lower case Greek letters are written as ω δ etc. while upper case Greek letters are written as Ω Δ.

Mathematical operators are prefixed with a backslash as $\sin(\beta)$, $\cos(\alpha)$, $\log(x)$ etc.

$$E = m \tag{1}$$

2.4 tables

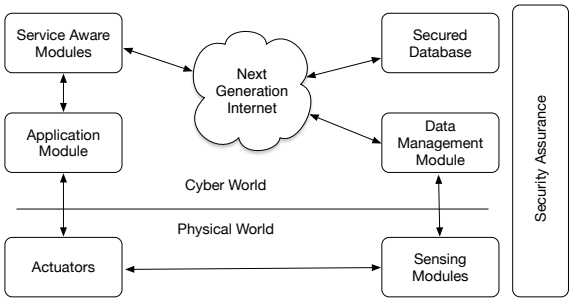
Col1	Col2	Col2	Col3
1	6	87837	787
2	7	78	5415
3	545	778	7507
4	545	18744	7560
5	88	788	6344

2.5 Algorithm

Algorithm 1 Artificial Neural Network Training Algorithm, modified from (Reed, 1999)

procedure FROWARD PROPOGATION
  $\alpha^{l+1} = f(z^{l+1})$
  $\alpha^{l+1} = f(z^{l+1})$
procedure CALCULATE LOSS FUNCTION
  $\alpha^{l+1} = f(z^{l+1})$
procedure BACKPROPOGATION
  calculate partial derivatives of output layer
  $\delta_l = \frac{\partial}{\partial z_i^l}\frac{1}{2}\|h_{w,b}(x) - y\|^2 = -(y_i - a_i^l)f'(z_i^l)$
  calculate partial derivatives of hidden layers and update weights
  $for\ j = l-1; j >= 2; j--$
  $\delta_l = \frac{\partial}{\partial z_i^l}\frac{1}{2}\|h_{w,b}(x) - y\|^2 = -(y_i - a_i^l)f'(z_i^l)$
  $\delta_l = \frac{\partial}{\partial z_i^l}\frac{1}{2}\|h_{w,b}(x) - y\|^2 = -(y_i - a_i^l)f'(z_i^l)p$
  $\delta_l = \frac{\partial}{\partial z_i^l}\frac{1}{2}\|h_{w,b}(x) - y\|^2 = -(y_i - a_i^l)f'(z_i^l)$
  end for

2.6 Minipage



2.7 useful links

Detect hand writing math symbols
http://detexify.kirelabs.org/classify.html
create latex tables online
https://www.tablesgenerator.com

References

[Alur, 2015] Alur, R. (2015). *Principles of Cyber-Physical Systems.* The MIT Press.