École Polytechnique Fédérale de Lausanne

Unsupervised and reinforcement learning in neural networks

1st Mini Project

Project Report

Kohonen maps on hand-written digits

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November 23, 2016

Figure 1: This is a figure caption.

Item	Quantity
Widgets	42
Gadgets	13

Table 1: An example table.

Abstract

Your abstract.

1 Convergence

2 Some LATEX Examples

2.1 Sections

Use section and subsection commands to organize your document. LATEX handles all the formatting and numbering automatically. Use ref and label commands for cross-references.

2.2 Comments

Comments can be added to the margins of the document using the todo command, as shown in the example on the right. You can also add inline comments too:

This is an inline comment.

Here's a comment in the margin!

2.3 Tables and Figures

Use the table and tabular commands for basic tables — see Table 1, for example. You can upload a figure (JPEG, PNG or PDF) using the files menu. To include it in your document, use the includegraphics command as in the code for Figure 1 below.

2.4 Mathematics

LATEX is great at typesetting mathematics. Let $X_1, X_2, \ldots, X_n$ be a sequence of independent and identically distributed random variables with $E[X_i] = \mu$ and $\text{Var}[X_i] = \sigma^2 < \infty$, and let

$$S_n = \frac{X_1 + X_2 + \cdots + X_n}{n} = \frac{1}{n}\sum_{i}^{n} X_i$$

denote their mean. Then as n approaches infinity, the random variables $\sqrt{n}(S_n - \mu)$ converge in distribution to a normal $\mathcal{N}(0, \sigma^2)$.

2.5 Lists

You can make lists with automatic numbering ...

1. Like this,

2. and like this.

... or bullet points ...

- Like this,

- and like this.

We hope you find writeLATEX useful, and please let us know if you have any feedback using the help menu above.