Zīmējums

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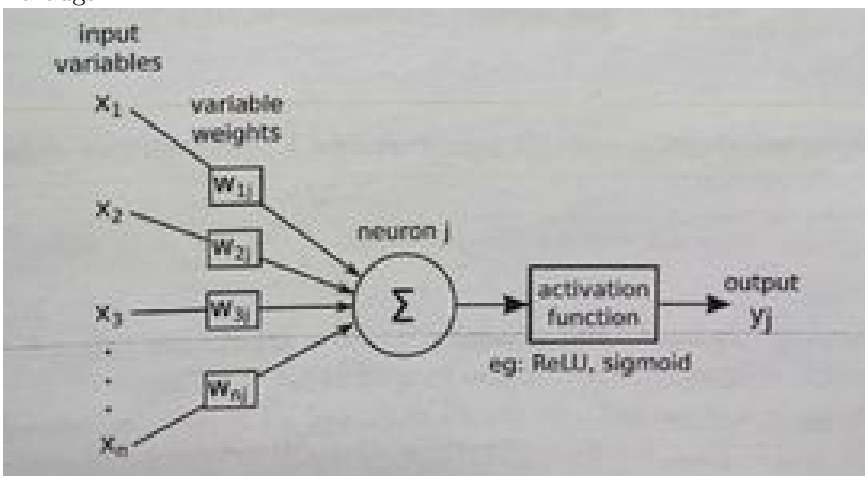
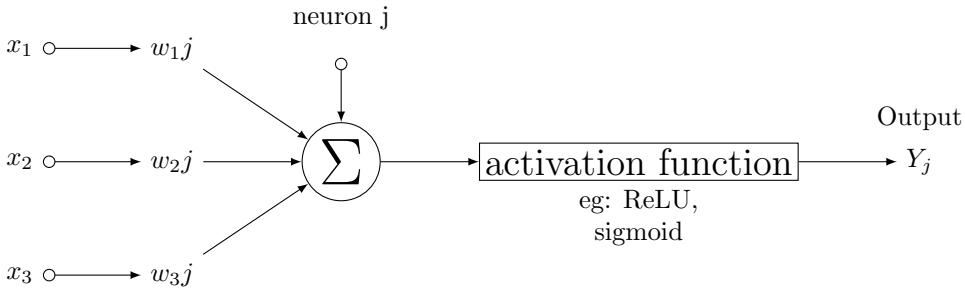
Paraugs:


input
variables
x_1
variable
weights
w_{1j}
x_2
w_{2j}
neuron j
x_3
w_{3j}
Σ
activation
function
output
y_j
eg: ReLU, sigmoid
w_{nj}
x_n


neuron j
x_1
w_1j
x_2
w_2j
x_3
w_3j
$\sum$
activation function
eg: ReLU,
sigmoid
Output
Y_j

```
\documentclass{report}
\usepackage[utf8]{inputenc}
\usepackage{verbatimbox}
\usepackage{graphicx}
\usepackage{amsmath,amssymb,latexsym}
\usepackage{ragged2e}
\usepackage{rotating}
\usepackage{scalerel,amssymb}
\usepackage{array}
\usepackage{tikz}
\usepackage{pgfplots}
\usetikzlibrary{matrix,chains,positioning,decorations.pathreplacing,arrows}
\usetikzlibrary{patterns}
\graphicspath{ {/home/user/images/} }


\title{Zīmējums}
\author{Kristaps Rubuls}
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\begin{document}

\maketitle


Paraugs:

\includegraphics[scale=1.2]{cutmypic.png}

\clearpage

\begin{tikzpicture}[
init/.style={
  draw,
  circle,
  inner sep=2pt,
  font=\Huge,
  join = by -latex
},
squa/.style={
  draw,
  inner sep=2pt,
  font=\Large,
  join = by -latex
},
start chain=2,node distance=13mm
```

```
]
\node[on chain=2]
  (x2) {$x_2$};
\node[on chain=2,join=by o-latex]
  {$w_2j$};
\node[on chain=2,init] (sigma)
  {$\displaystyle\Sigma$};
\node[on chain=2,squa,label=below:{\parbox{2cm}{\centering eg: ReLU, sigmoid}}]
  {activation
  function};
\node[on chain=2,label=above:Output,join=by -latex]
  {$Y_{j}$};
\begin{scope}[start chain=1]
\node[on chain=1] at (0,1.5cm)
  (x1) {$x_1$};
\node[on chain=1,join=by o-latex]
  (w1) {$w_1j$};
\end{scope}
\begin{scope}[start chain=3]
\node[on chain=3] at (0,-1.5cm)
  (x3) {$x_3$};
\node[on chain=3,join=by o-latex]
  (w3) {$w_3j$};
\end{scope}
\node[label=above:\parbox{2cm}{\centering neuron j}] at (sigma|-w1) (b) {};

\draw[-latex] (w1) -- (sigma);
\draw[-latex] (w3) -- (sigma);
\draw[o-latex] (b) -- (sigma);

;
```