1819-108-W10-C2-HW

Valerija Boreca

April 11, 2019

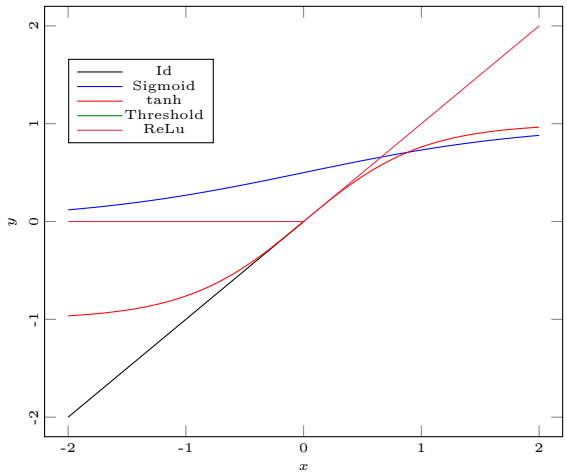

Figure 2: Activation functions

$$\frac{1}{1+E^{-x}} - sigmoid$$
$$y = tanh(x) - tanh$$

```
function y=C2_final(t)

if nargin ==0

t=0:0.01:8;

end
%t=-10:0.01:11;

%t_zero=0:0.1:1;

t_zerof=(t>=-10)&(t<1);
t_zero=t(t_zerof);

%t_const=4.5:0.01:6.5;

t_constf=(t>=1)&(t<10);
t_const=t(t_constf);

%% Konstante

y_const=ones(size(t_const));

%plot(t_const,y_const)
```

```
%% nulles signals

%t_zero=0:0.1:1;

y_zero=0*ones(size(t_zero));

%plot(t_zero,y_zero)

%% Vektoru apvienosana

t=[t_zero,t_const];

y=[y_zero,y_const];

if nargout==0%(izejas argumentu skaits)

plot(t,y);

y=[];

end

hold on
x = -10:0.1:10;
y = tanh(x);
plot(x,y);

x = -10:0.1:10;
y = poslin(x);
plot(x,y);

x = -10:0.1:10;
y=x;
plot(x,y);

x = -10:0.1:10;
y = sigmf(x,[2 4]);
plot(x,y);
xlabel('x')
ylabel('y')
ylim([-1.5 1.5])
legend('threshold','tanh(x)','ReLu','x','sigmoid')

hold off
```