Latex macros

```
In [1]: %%latex
        $$
        \newcommand{\x}{\mathbf{x}}
        \newcommand{\tx}{\tilde{\x}}
        \newcommand{\y}{\mathbf{y}}
        \newcommand{\b}{\mathbf{b}}
        \newcommand{\c}{\mathbf{c}}
        \newcommand{\e}{\mathbf{e}}
        \newcommand{\z}{\mathbf{z}}
        \newcommand{\h}{\mathbf{h}}
        \newcommand{\u}{\mathbf{u}}
        \newcommand{\v}{\mathbf{v}}
        \newcommand{\w}{\mathbf{w}}
        \newcommand{\V}{\mathbf{V}}
        \newcommand{\W}{\mathbf{W}}
        \newcommand{\X}{\mathbf{X}}
        \newcommand{\KL}{\mathbf{KL}}
        \newcommand{\E}{{\mathbb{E}}}
        \newcommand{\Reals}{{\mathbb{R}}}
        \newcommand{\ip}{\mathbf{{(i)}}}
        %
        % Test set
        \newcommand{\xt}{\underline{\x}}
        \newcommand{\yt}{\underline{\y}}
        \newcommand{\Xt}{\underline{\X}}
        \newcommand{\perfm}{\mathcal{P}}
        %
        % \ll indexes a layer; we can change the actual letter
        \newcommand{\ll}{l}
        \newcommand{\llp}{{(\ll)}}
        %
        \newcommand{Thetam}{\Theta_{-0}}

        % CNN
        \newcommand{\kernel}{\mathbf{k}}
```

```latex
\newcommand{\dim}{d}
\newcommand{\idxspatial}{{\text{idx}}}
\newcommand{\summaxact}{\text{max}}
%
%

% RNN
% \tt indexes a time step
\newcommand{\tt}{t}
\newcommand{\tp}{{(\tt)}}
%
%

% LSTM
\newcommand{\g}{\mathbf{g}}
\newcommand{\remember}{\mathbf{remember}}
\newcommand{\save}{\mathbf{save}}
\newcommand{\focus}{\mathbf{focus}}
%
%
% NLP
\newcommand{\Vocab}{\mathbf{V}}
\newcommand{\v}{\mathbf{v}}
\newcommand{\offset}{o}
\newcommand{\o}{o}
\newcommand{\Emb}{\mathbf{E}}
%
%
\newcommand{\loss}{\mathcal{L}}
\newcommand{\cost}{\mathcal{L}}
%
%
\newcommand{\pdata}{p_\text{data}}
\newcommand{\pmodel}{p_\text{model}}
%
% SVM
```

```latex
\newcommand{\margin}{{\mathbb{m}}}
\newcommand{\lmk}{\boldsymbol{\ell}}
%
% Functions with arguments
\def\xsy#1#2{#1^#2}
\def\rand#1{\tilde{#1}}
\def\randx{\rand{\x}}
\def\randy{\rand{\y}}
\def\trans#1{\dot{#1}}
\def\transx{\trans{\x}}
\def\transy{\trans{\y}}
%
\def\argmax#1{\underset{#1} {\operatorname{argmax}} }
\def\argmin#1{\underset{#1} {\operatorname{argmin}} }
\def\max#1{\underset{#1} {\operatorname{max}} }
\def\min#1{\underset{#1} {\operatorname{min}} }
%
\def\pr#1{\mathcal{p}(#1)}
\def\prc#1#2{\mathcal{p}(#1 \; | \; #2)}
\def\cnt#1{\mathcal{count}_{#1}}
\def\node#1{\mathbb{#1}}
%
\def\loc#1{{\text{##} {#1}}}
%
\def\OrderOf#1{\mathcal{O}\left( #1 \right)}
%
% Expectation operator
\def\Exp#1{\underset{#1} {\operatorname{\mathbb{E}}} }
%
% Reinforcement learning
\newcommand{\Actions}{{\mathcal{A}}}
\newcommand{\actseq}{A}
\newcommand{\act}{a}
\newcommand{\States}{{\mathcal{S}}}
\newcommand{\stateseq}{S}
\newcommand{\state}{s}
```

```
\newcommand{\Rewards}{{\mathcal{R}}}
\newcommand{\rewseq}{R}
\newcommand{\rew}{r}
\newcommand{\transp}{P}
\newcommand{\statevalfun}{v}
\newcommand{\actvalfun}{q}
\newcommand{\disc}{\gamma}
%
%
\newcommand{\floor}[1]{\left\lfloor #1 \right\rfloor}
\newcommand{\ceil}[1]{\left\lceil #1 \right\rceil}
%
%
$$
```

Store cell 1 as a macro (need to change line number if above cell is not output 1)

In [2]: `#% macro _latex_std_ 1`

In [3]: `# %store -r _latex_std_`