LaTeX Cheatsheet for ML Project (Overleaf / ACL style)

Function	Command / Environment	Example / Notes
Insert image	\begin{figure}[t] ... \includegraphics[width=\columnwidth]{figures/your_fig.png} ... \end{figure}	Put image under figures/, refer via \ref{fig:label}
Insert table	\begin{table}[t] ... \begin{tabular}{lrr} ... \end{tabular} ... \end{table}	Use booktabs for nicer tables
Sections / equations	\section{...}, \subsection{...}, \paragraph{...}; \begin{equation} … \end{equation}, \[… \]	Place \label after section heading or after caption
Lists	\begin{itemize} \item … \end{itemize}; \begin{enumerate} \item … \end{enumerate}	Custom bullet: \item[--] or enumitem
Citations	\citep{key}, \citet{key}, \citeyearpar{key}	ACL template uses natbib
Cross-references	\ref{fig:label}, \ref{tab:label}, \ref{sec:sec_label}	Always put \label after caption or section
Math symbols / operators	\mathbb{R}, \mathcal{L}, \operatorname{argmax}, \frac{a}{b}, \sum, \prod	Common math notation
Algorithms / pseudocode	\begin{algorithm} ... \end{algorithm} (with algorithm, algpseudocode)	Keep formatting neat
Footnotes	Some text\footnote{Footnote text.}	Footnote inside paragraph
Hyperlinks / URLs	\href{https://…}{text}, \url{…}	Requires hyperref
Comments	% comment	Everything after % ignored
Format toggles	\aclfinalcopy; \usepackage[review]{acl}	Camera-ready vs. review with line numbers
Cross-entropy loss	L(\theta) = -\sum_i y_i \log \hat y_i	Classification loss
Regularization	J(\theta) = \frac{1}{n}\sum_i \ell(f(x_i), y_i) + \lambda |\theta|^2	L2 penalty
Linear model	\hat y = w^\top x + b	Linear regression

Softmax	\text{softmax}(z_i) = \frac{\exp(z_i)}{\sum_j \exp(z_j)}	Multiclass probabilities
KL divergence	D_{KL}(P \,|\, Q) = \sum_x P(x) \log \frac{P(x)}{Q(x)}	Distribution divergence
MSE	\text{MSE} = \frac{1}{n}\sum_i (y_i - \hat y_i)^2	Regression loss
Optimization	\argmin_\theta L(\theta), \argmax_x p(x)	Common operators
Gradient descent	\theta \leftarrow \theta - \eta \nabla_\theta L(\theta)	Parameter update