

# WSD Key Concepts

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- **Sense:** V:TOAST#2
- **Synset:** V:{TOAST#2, PLEDGE#3, DRINK#3, SALUTE#1, WASSAIL#2}

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colors</wf>  
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only</wf>  
<wf cmd=ignore pos=DT>the</wf>

- The online version appears to be offline
- You can use wordnet in Python, via NLTK
- Check out the demo at <https://github.com/jacobeisenstein/gt-nlp-class/tree/master/demos/wordnet.ipynb>

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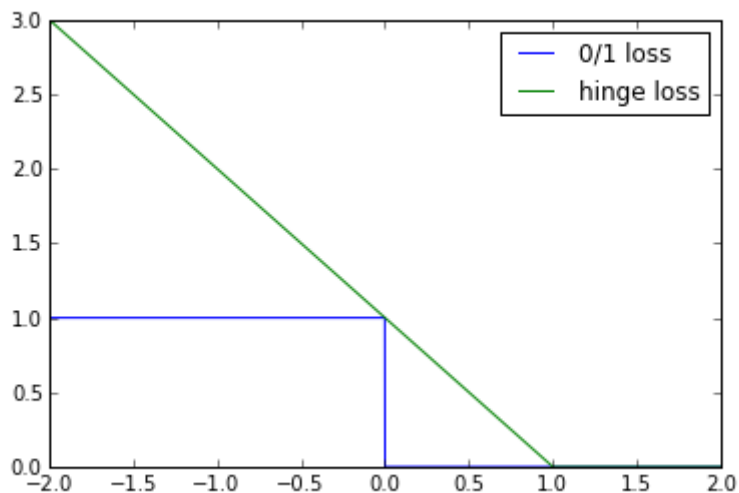
# Back to classification

- Recap of perceptron
- Learning as optimization; loss functions
- Hinge loss and large-margin classification
- Logistic regression and online optimization

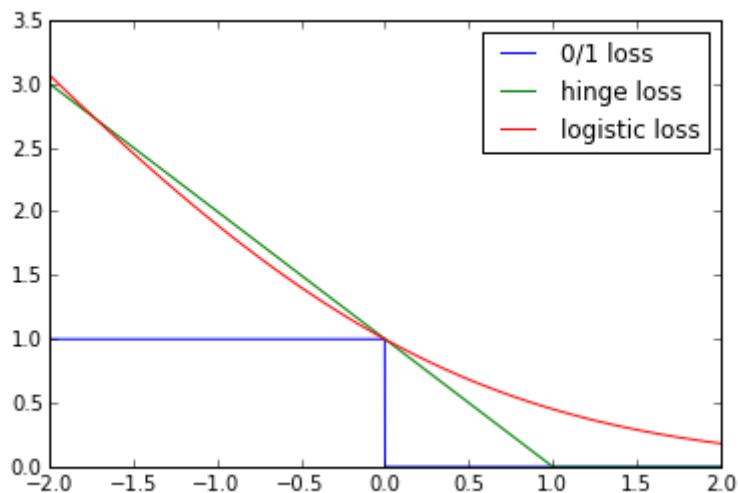


# Loss functions

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  - **Batch:** conjugate gradient, Newton, L-BFGS (Quasi-Newton), ...