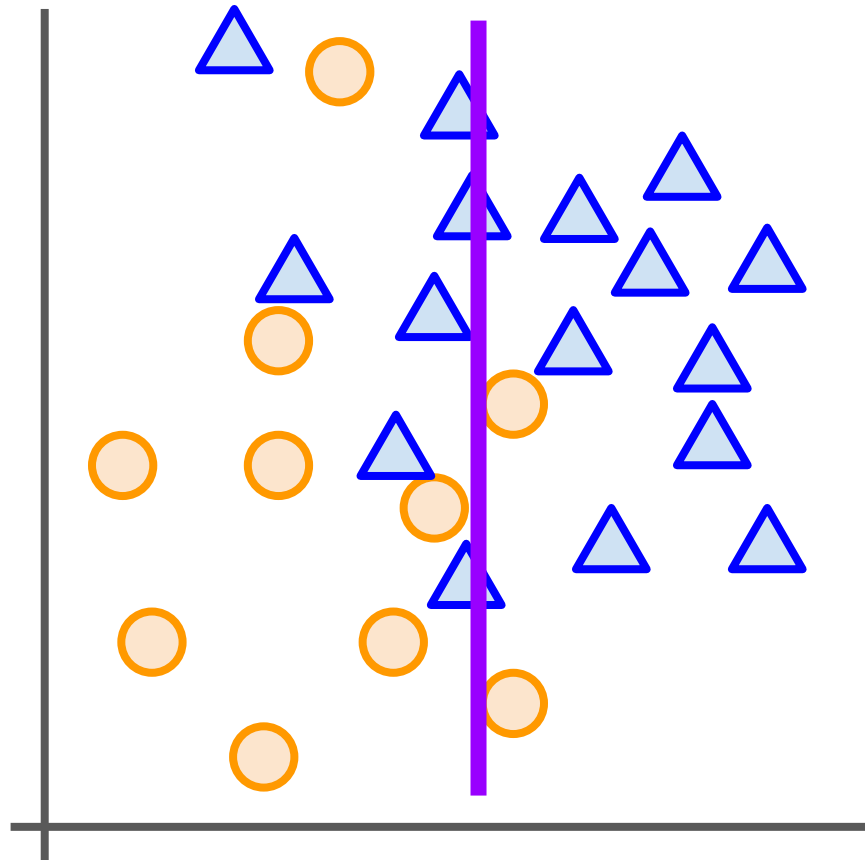
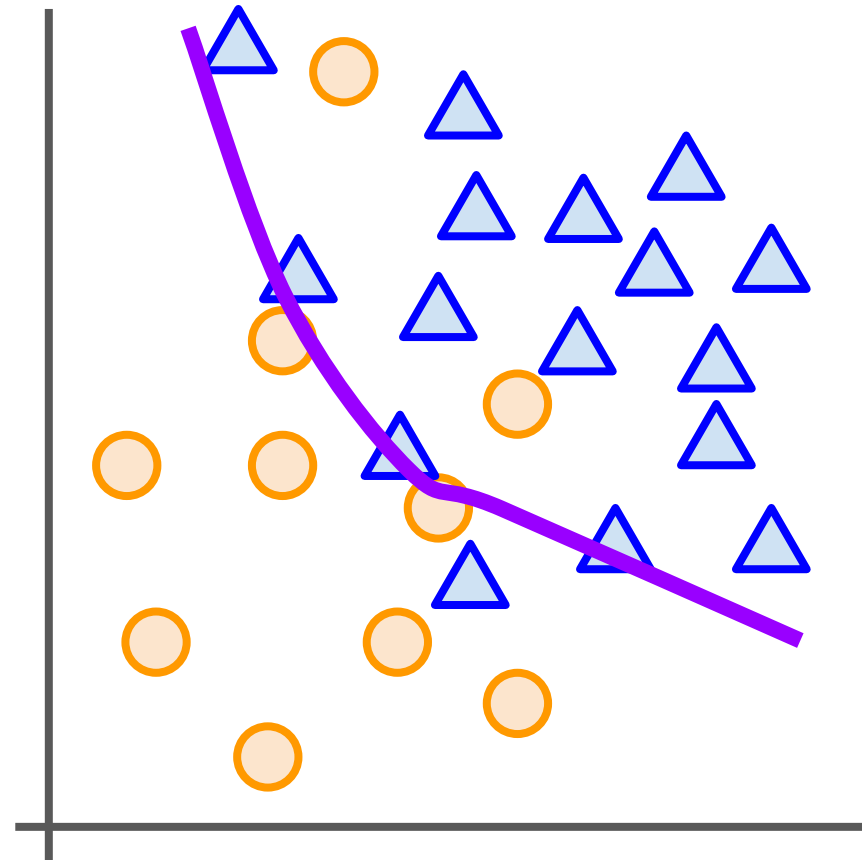


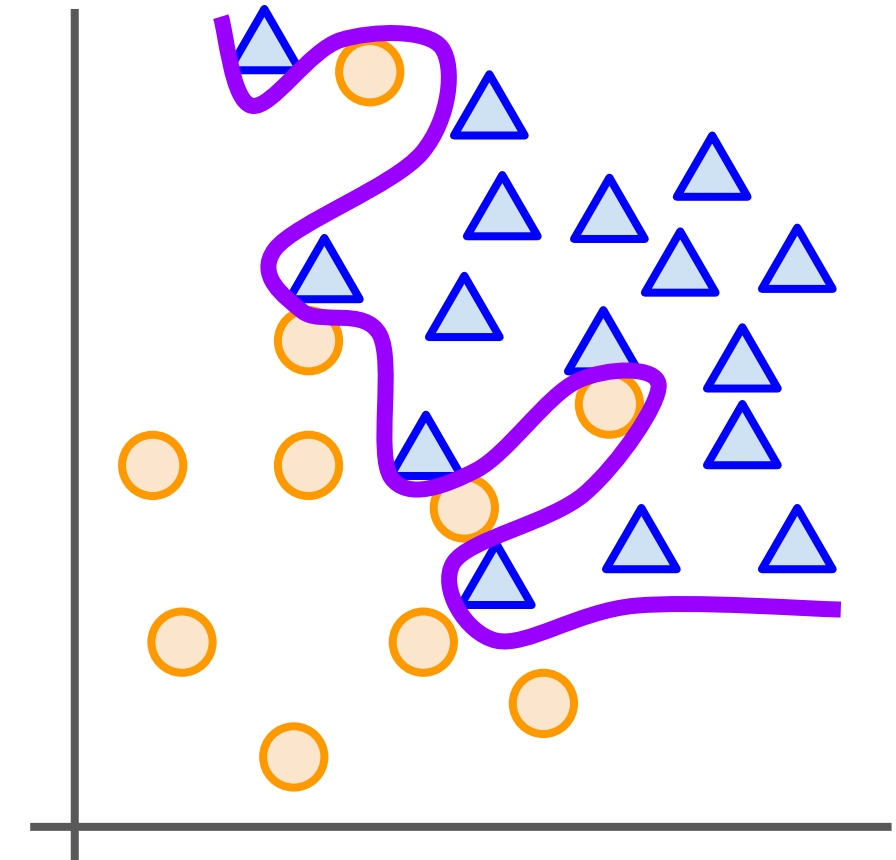
Underfitting vs. Overfitting



Underfit: Model fails to capture trends in the data

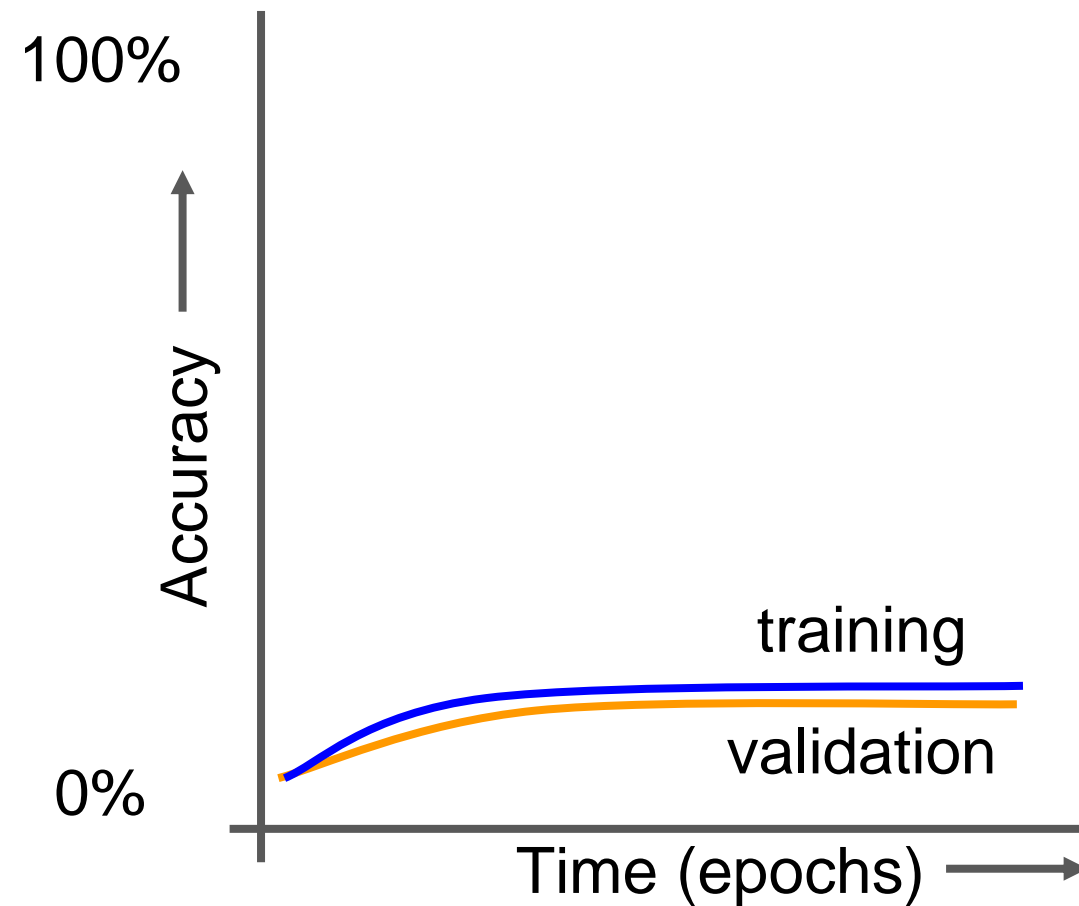


Good fit: Model captures trends and can generalize to unseen data

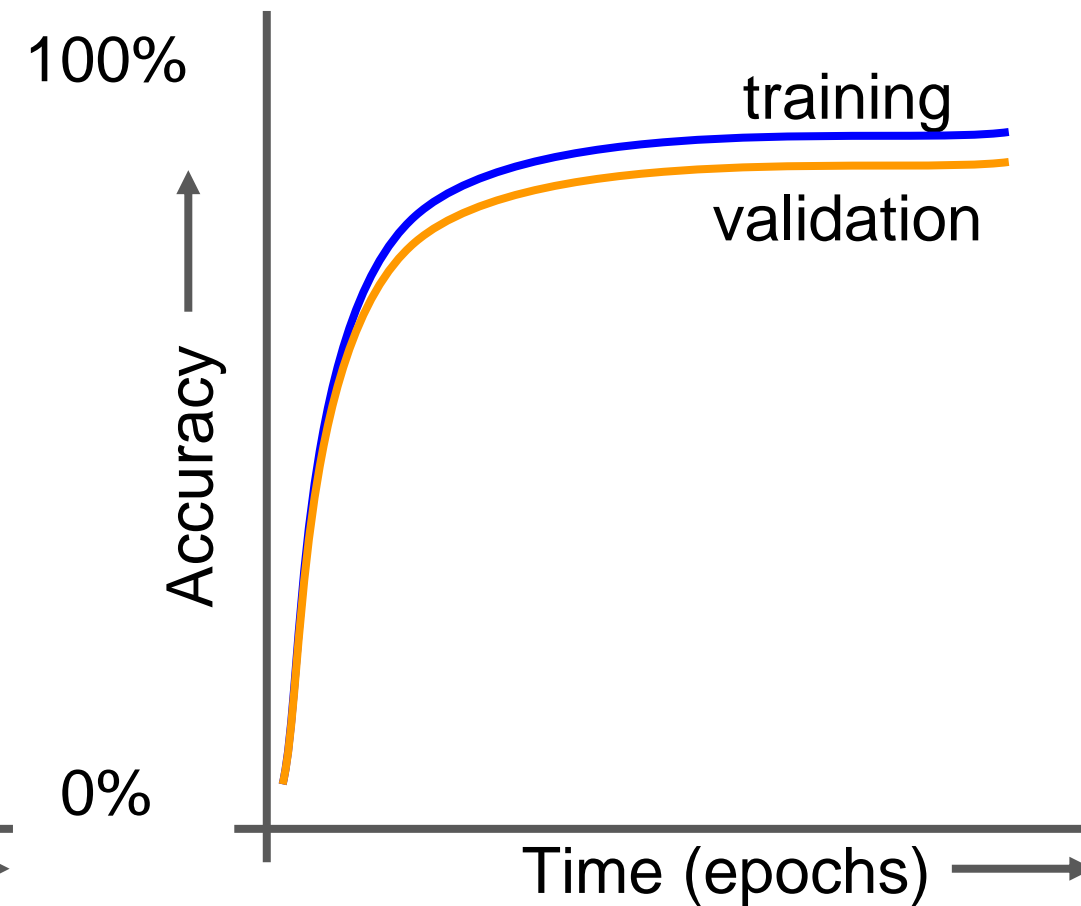


Overfit: Model captures training data trends but fails on unseen data

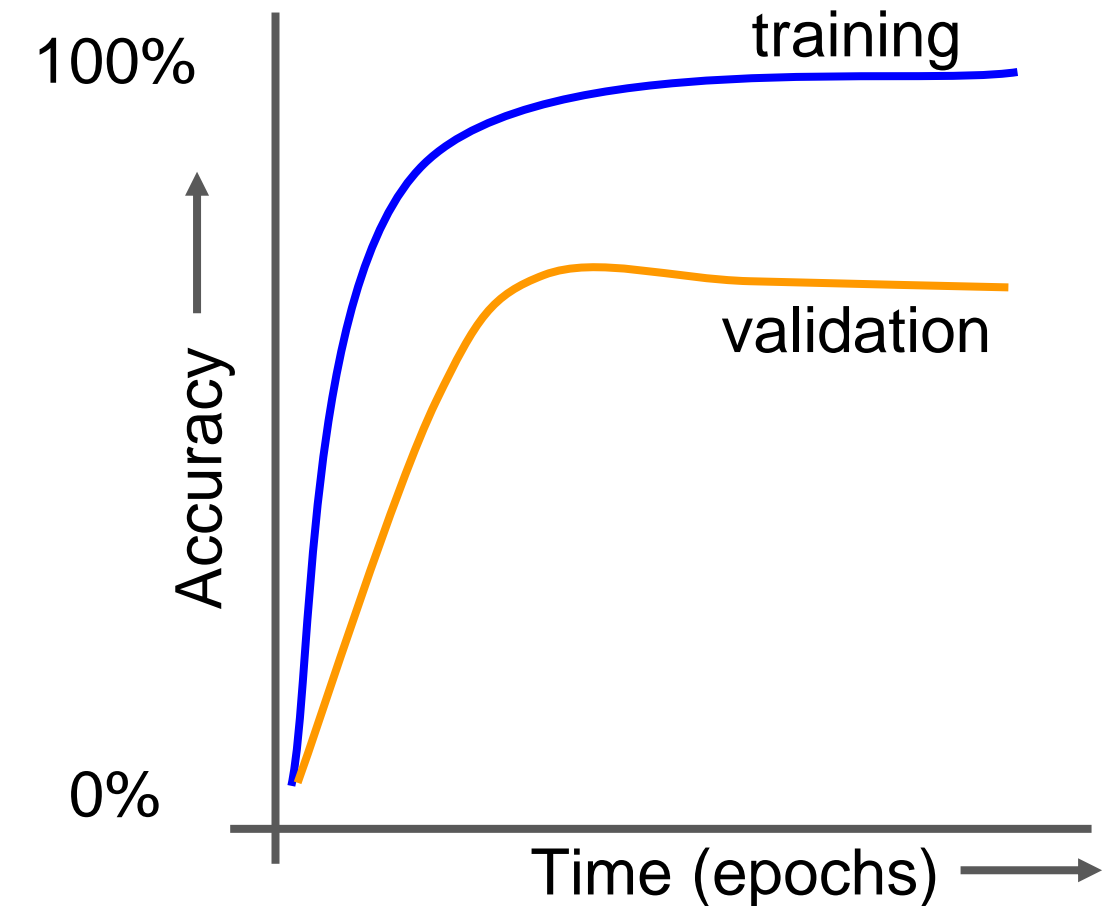
Spotting Underfitting and Overfitting



Underfit: Model performs poorly on training and validation data

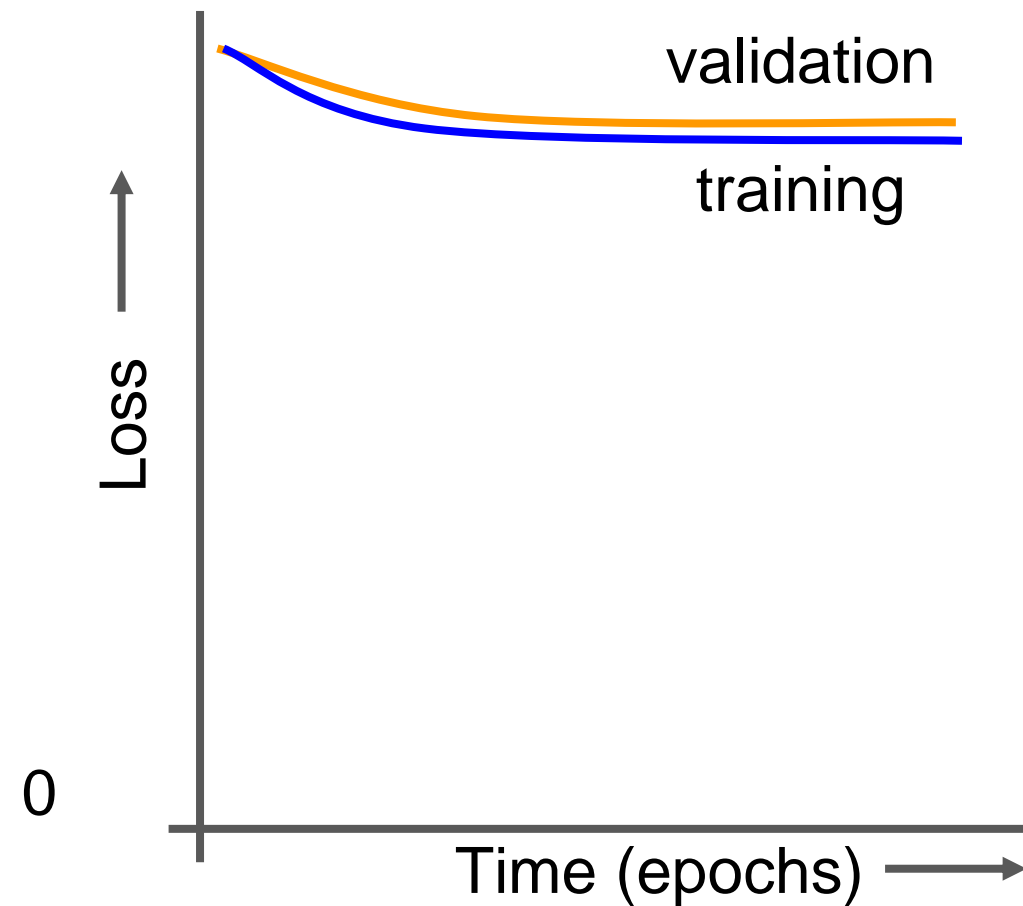


Good fit: Model generalizes well from training to validation data

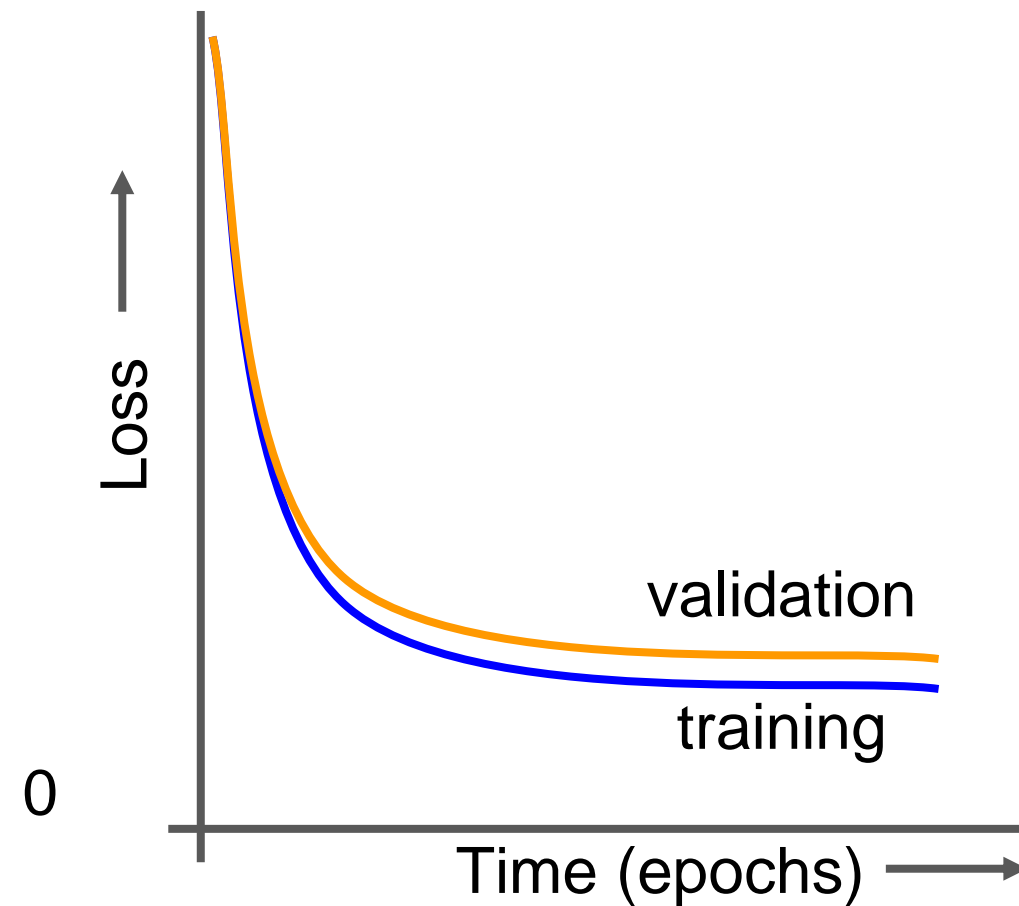


Overfit: Model predicts training data well but fails to generalize to validation data

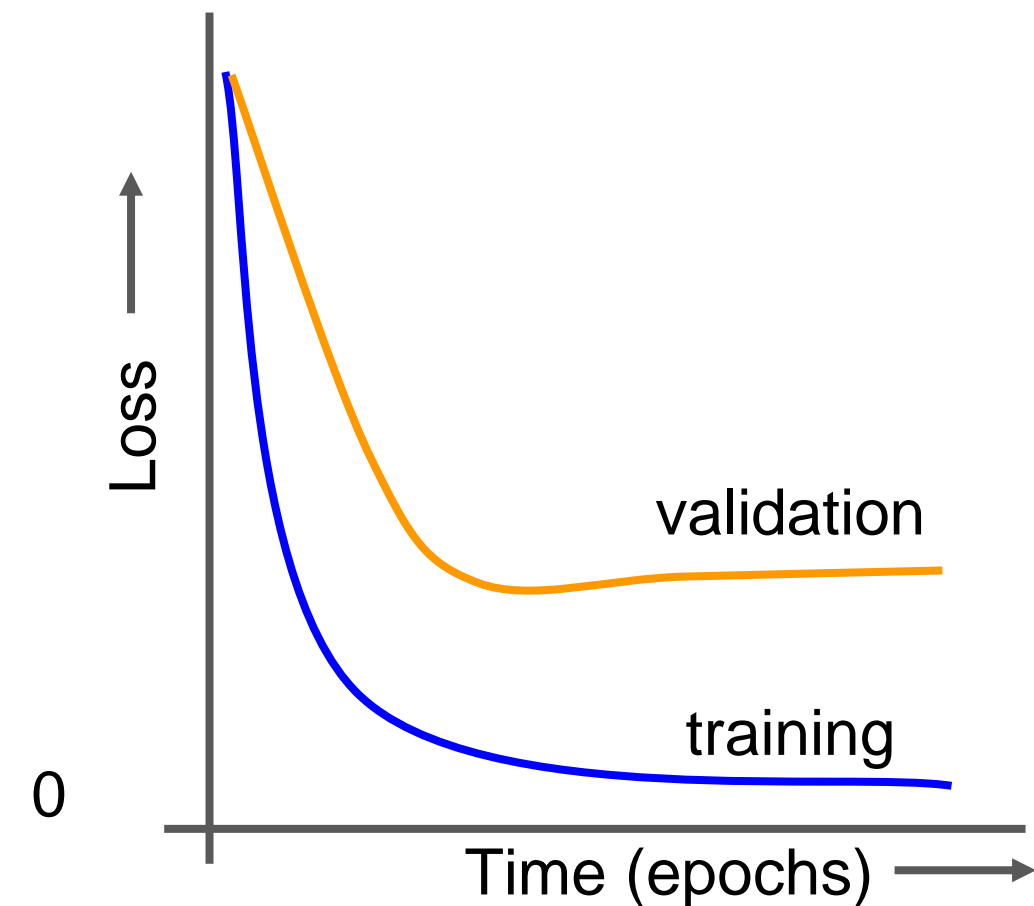
Spotting Underfitting and Overfitting



Underfit: Model performs poorly on training and validation data

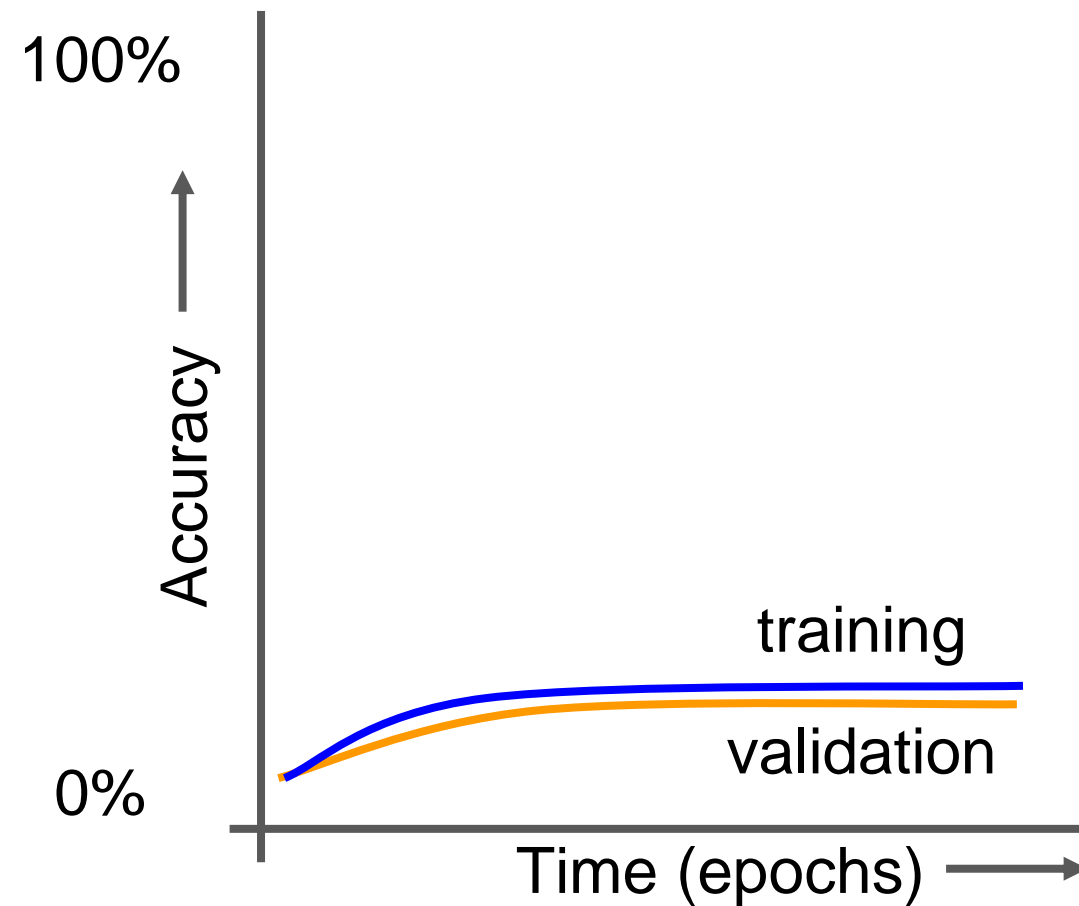


Good fit: Model generalizes well from training to validation data



Overfit: Model predicts training data well but fails to generalize to validation data

Fixing Underfitting

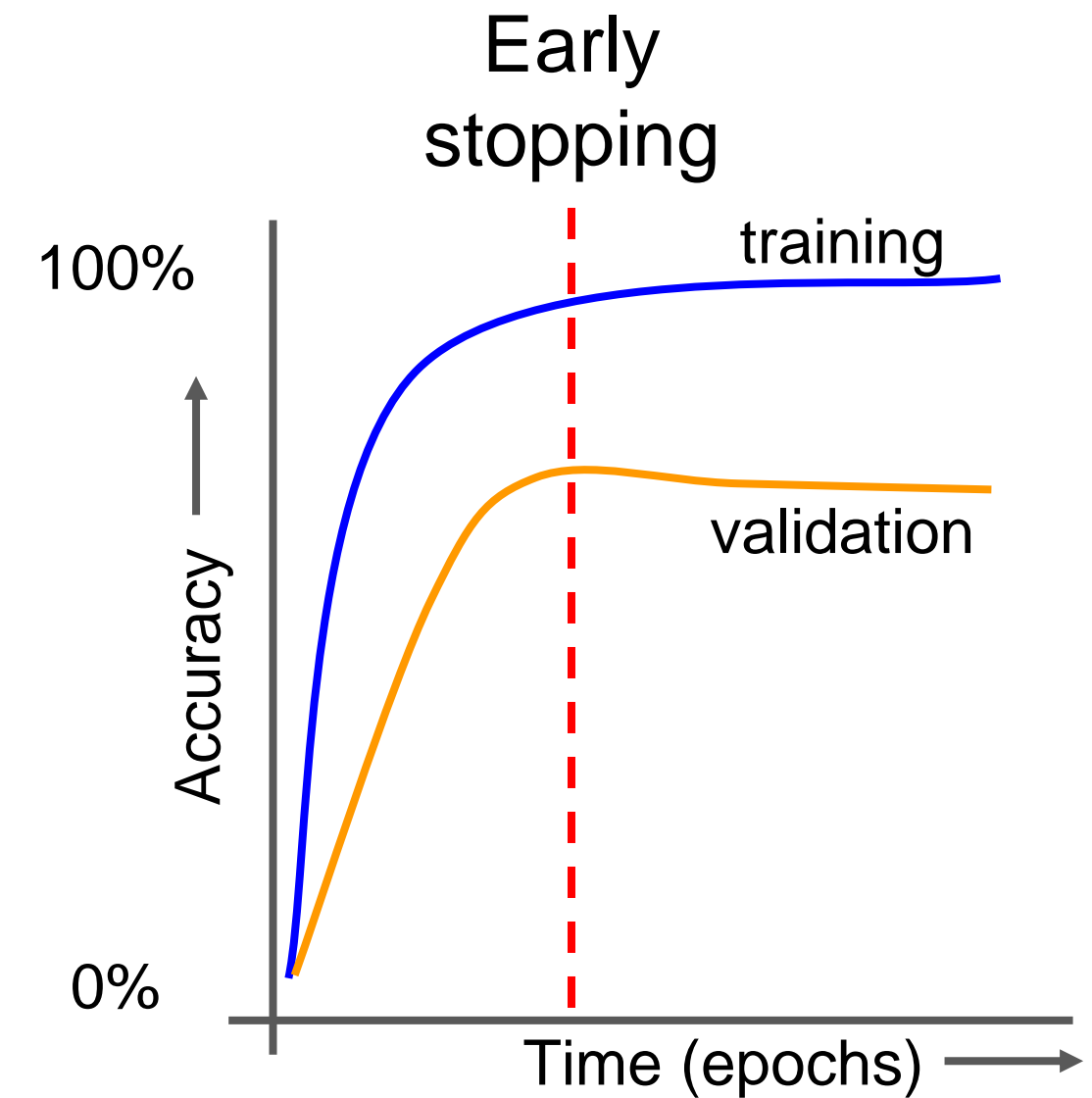


Underfit: Model performs poorly on training and validation data

- Try different features or more features
- Train for longer
- Try a more complex model (more layers, more nodes, etc.)
- Get more good quality data relevant to the problem

Fixing Overfitting

- Get more data
- Early stopping
- Reduce model complexity
- Add regularization terms
- Add dropout layers (for neural networks)



Overfit: Model predicts training data well but fails to generalize to validation data