**Improving Neural Network Performance**

1. Vanishing Gradients

* ﻿﻿Activation Functions
* ﻿﻿Weight Initialization

2. Overfitting

* ﻿﻿Reduce Complexity/Increase Data
* ﻿﻿Dropout Layers
* ﻿﻿Regularization (LI & L2)
* ﻿﻿Early Stopping

3. Normalization

* ﻿﻿Normalizing inputs
* ﻿﻿Batch Normalization
* ﻿﻿Normalizing Activations

4. Gradient Checking and Clipping

* Optimizers -
* Momentum
* Adagrad
* RMSprop
* Adam

5. Gradient Checking and Clipping

6. Learning rate scheduling

﻿﻿﻿7. Hyperparameter Tuning

* No. of hidden layers
* nodes/layer
* ﻿Batch size

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