

Time Limit: 75 minutes NOTE: This is not an exhaustive list, but a set of high level topics and associated notes that can direct your studies. You are responsible for anything we covered in lecture. I will not ask you to memorize python library calls, and you will not need to code up algorithms in their entirety.

- Visualization
 - Data exploration
 - Training performance evaluation
 - Inference performance evaluation + explainability
- Backpropagation
 - For conv, pooling, and dense layers
 - As it applies to a networks as a whole
- General [Sub-]Architecture Styles/Types
 - Encoder/Decoder
 - AutoEncoders
 - CNNs
 - U-Nets
 - Vision Transformers
 - Residual/Skip Connections
 - [Transposed] Convolutions
 - Pooling
 - Attention
 - Transformers
- Image Classification / Image (Semantic) Segmentation / Pixel-Wise Regression
 - Data manipulation/preprocessing
 - Architectures to use
 - Proper performance evaluation
 - Transfer learning applications