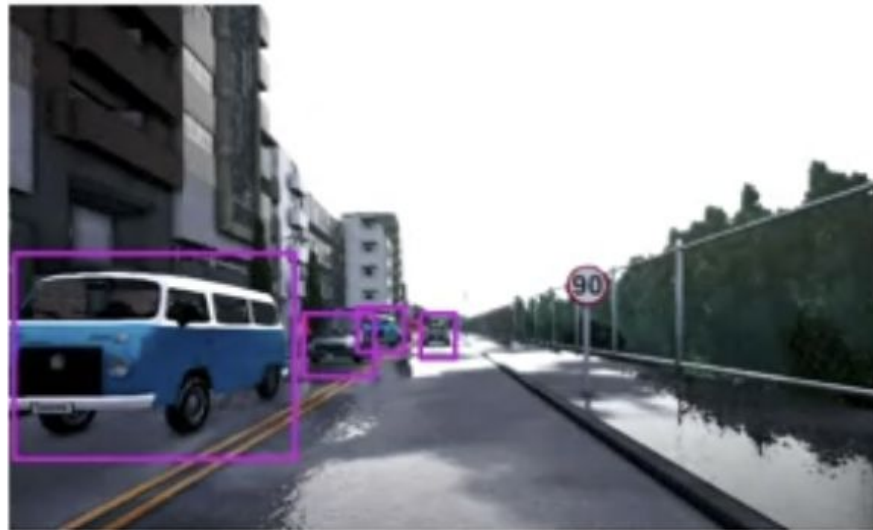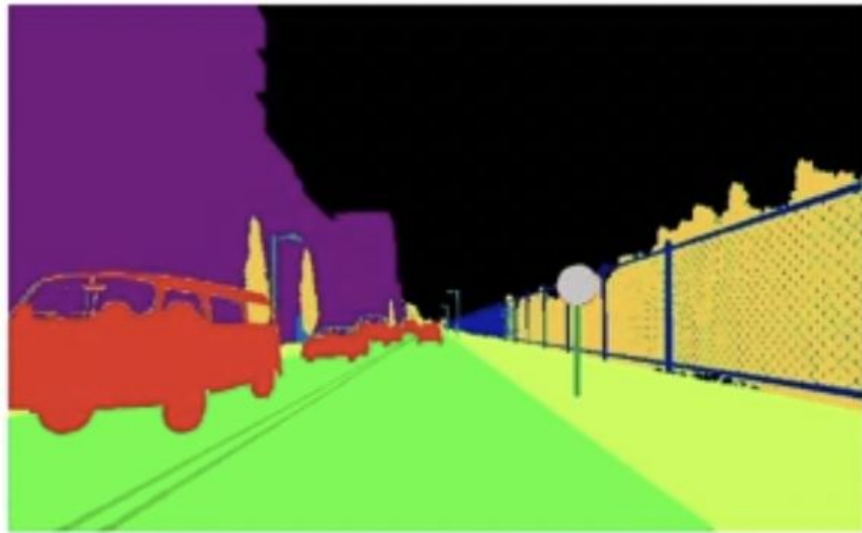# Advanced Machine Learning

Likhit Nayak

Semantic Segmentation

Semantic Segmentation
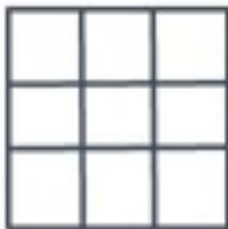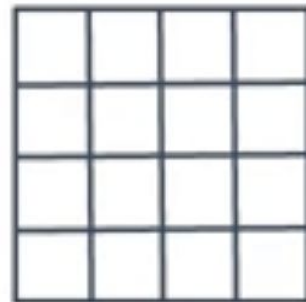
Semantic Segmentation - Labels

Transpose Convolution
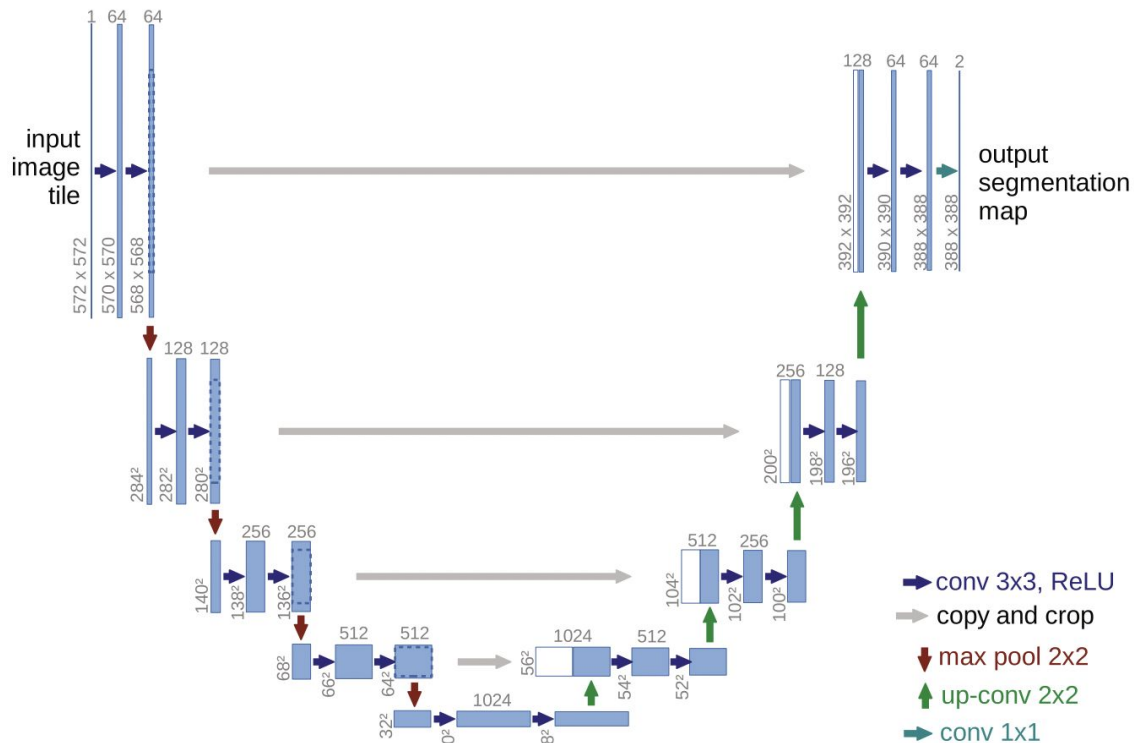
U-Net

Ronneberger, Olaf, Philipp Fischer, and Thomas Brox. "U-net: Convolutional networks for biomedical image segmentation." *Medical Image Computing and Computer-Assisted Intervention–MICCAI 2015: 18th International Conference, Munich, Germany, October 5-9, 2015, Proceedings, Part III 18*. Springer International Publishing, 2015.
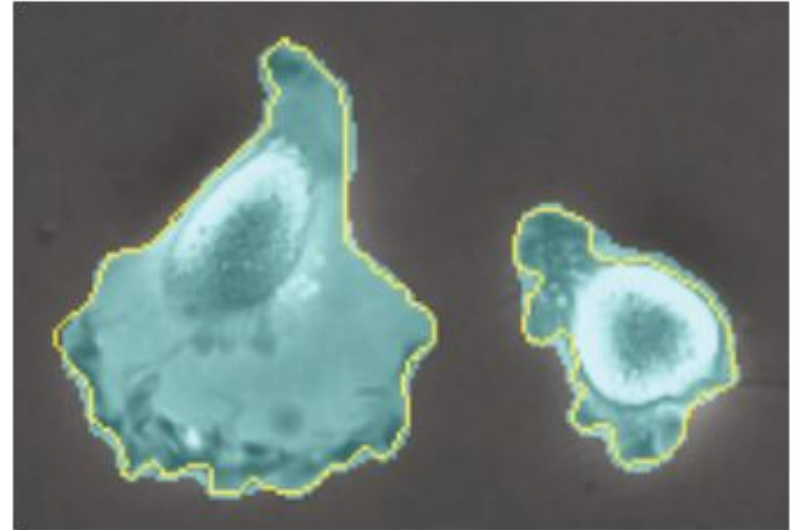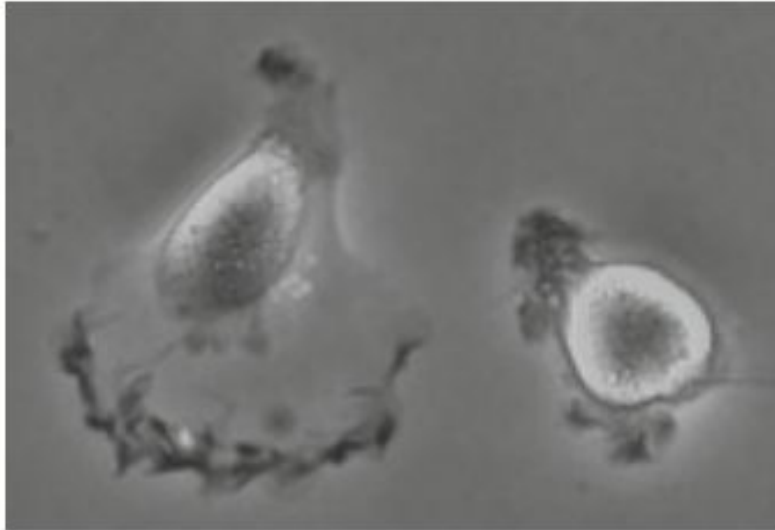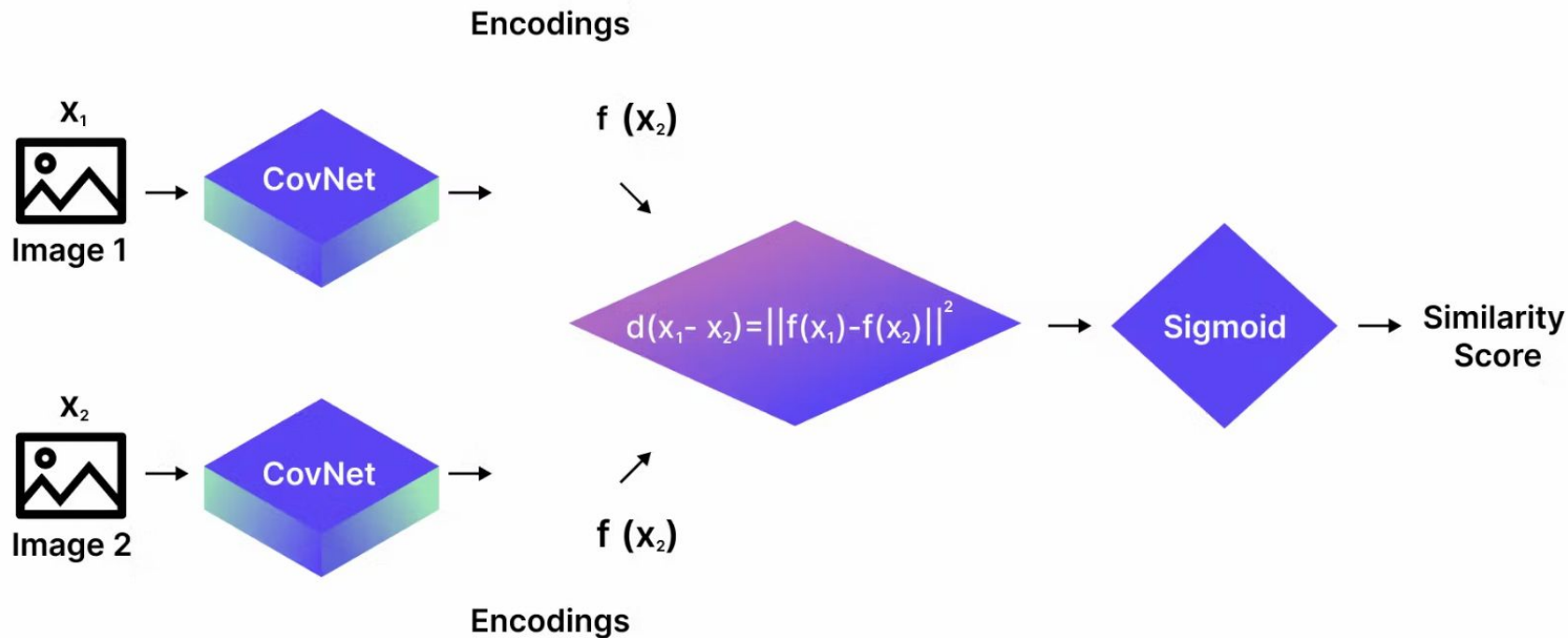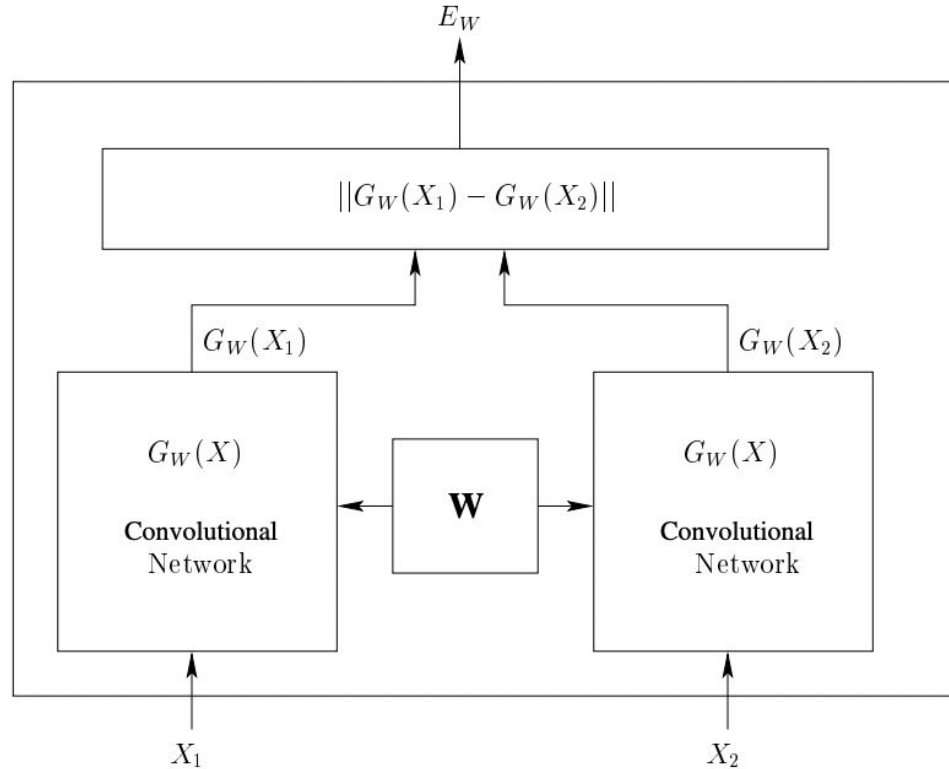
U-Net

Ronneberger, Olaf, Philipp Fischer, and Thomas Brox. "U-net: Convolutional networks for biomedical image segmentation." *Medical Image Computing and Computer-Assisted Intervention–MICCAI 2015: 18th International Conference, Munich, Germany, October 5-9, 2015, Proceedings, Part III 18*. Springer International Publishing, 2015.

One-shot learning

Siamese Network

Chopra, Sumit, Raia Hadsell, and Yann LeCun. "Learning a similarity metric discriminatively, with application to face verification." *2005 IEEE computer society conference on computer vision and pattern recognition (CVPR'05)*. Vol. 1. IEEE, 2005.

Siamese Network

Koch, Gregory, Richard Zemel, and Ruslan Salakhutdinov. "Siamese neural networks for one-shot image recognition." *ICML deep learning workshop*. Vol. 2. No. 1. 2015.

Triplet Loss

Schroff, Florian, Dmitry Kalenichenko, and James Philbin. "Facenet: A unified embedding for face recognition and clustering." *Proceedings of the IEEE conference on computer vision and pattern recognition*. 2015.