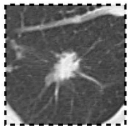


Traditional machine learning

Input image



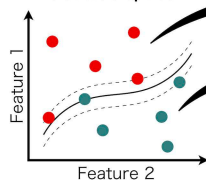
How can we find the malignancy?



- Volume
- Texture
- Density
- Spicular
- Circularity
- ...

Feature selection and quantification

Feature space



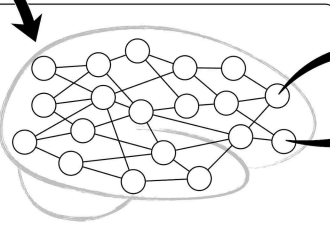
Statistical classification

Malignant

Benign

- ✗ User depended feature selection
- ✓ Reasonable features

Deep learning



DCNN based classification

Malignant

Benign

- ✓ Automatic feature selection
- ✗ Unknown features