# **Topic 3: Biomedical Image Analysis**

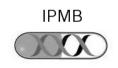
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## Biomedical Image Analysis Projects

#### Digit Recognition:

- Data visualization
- Computation of statistical measures for data normalization
- Data dimensionality reduction with PCA
- Implementation of a statistical method for digit recognition
- Evaluation
- Project 1: K-nearest neighbors (KNN) algorithm
- Project 2: Linear discriminat analysis (LDA)



## Biomedical Image Analysis Projects

### Cell Nuclei Segmentation:

- Data visualization
- Data pre-processing
- Implementation of a segmentation method
- Implementation of Dice performance measure
- Evaluation
- Project 3: Otsu thresholding
- Project 4: Region growing
- Project 5: Clustering method

