PSY9511: Seminar 5

Unsupervised learning

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Outline

1. Overview of unsupervised learning
2. Clustering
    - K-means
    - Hierarchical
3. Dimensionality reduction
    - Principal component analysis (PCA)
    - Independent component analysis (ICA)

Unsupervised learning

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Unsupervised learning: Motivation

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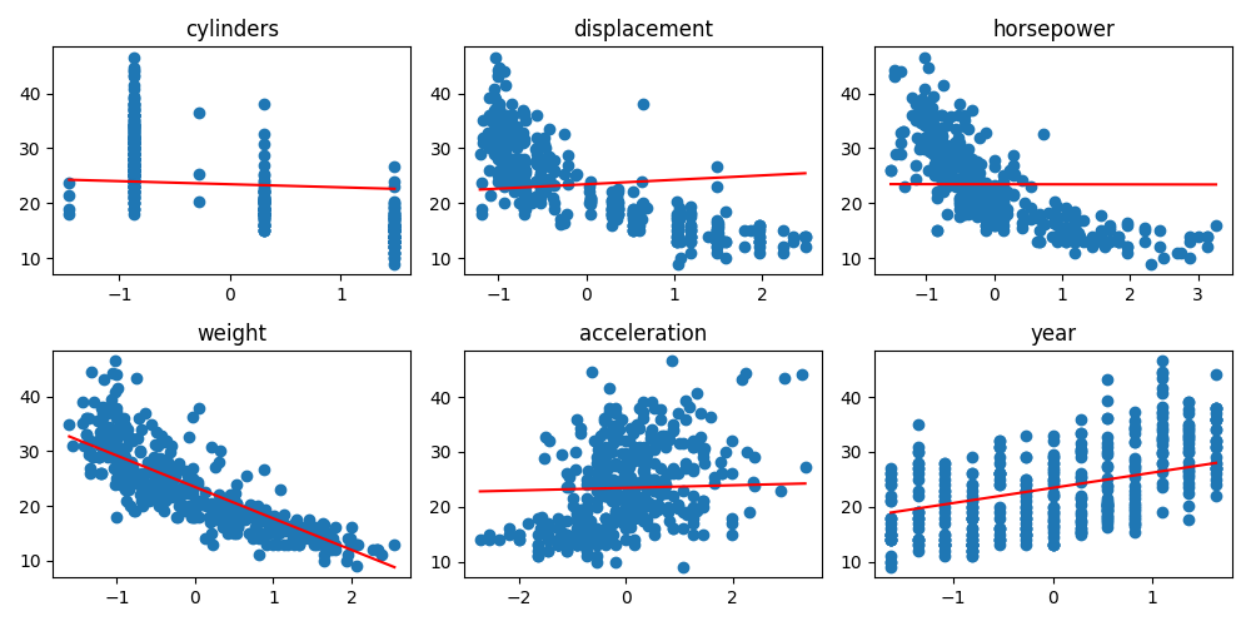

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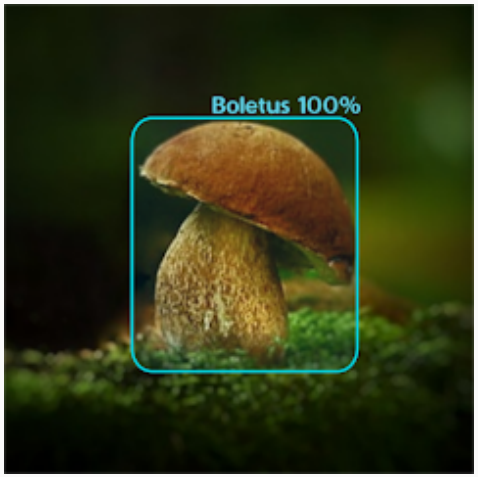

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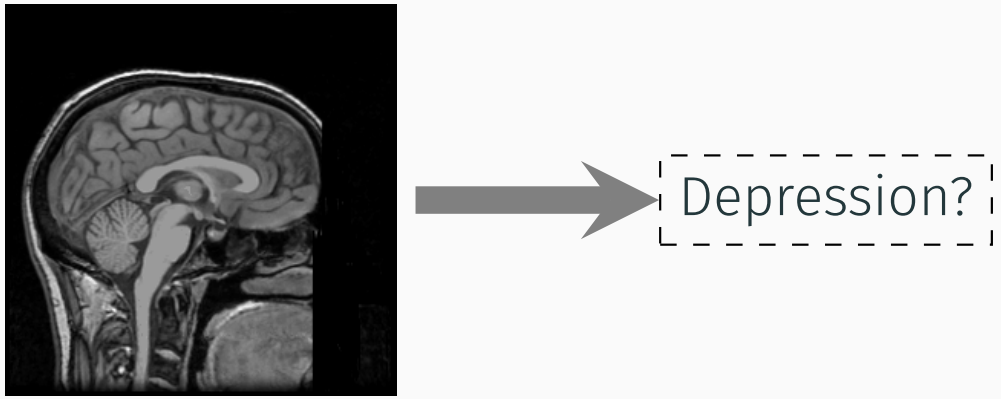

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- Visualization

Clustering

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x_1	x_2
0.20	-0.26
0.15	-0.33
0.03	0.07
-0.07	-0.01
-0.06	0.00
0.28	-0.24
0.21	-0.35
0.20	-0.32
0.30	0.25
0.00	-0.12