ME599-004: Data-Driven Methods for Control Systems
Winter 2024

Instructor: Uduak (*Who-dwak*) Inyang-Udoh
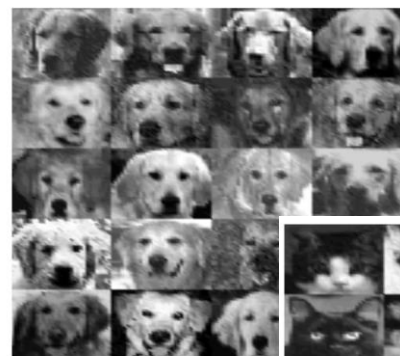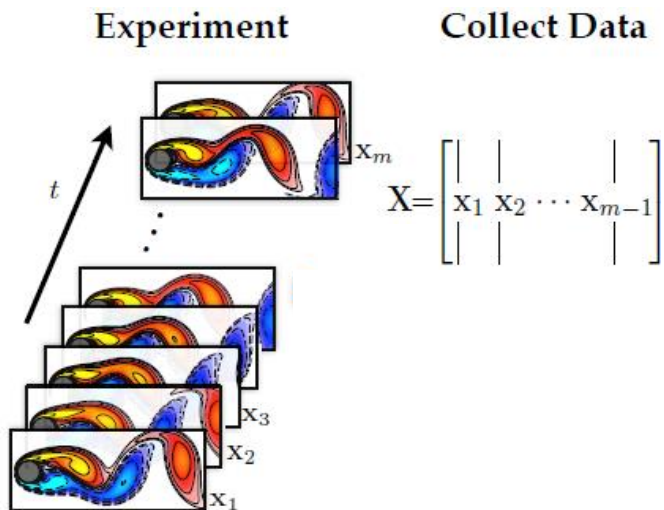
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Classification

High dimensionality is a challenge in processing data.

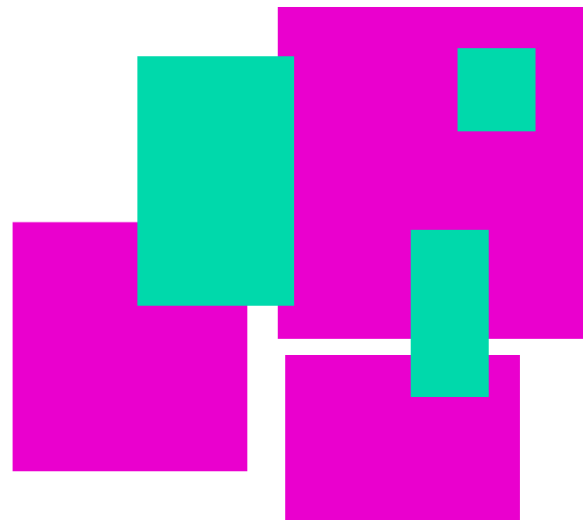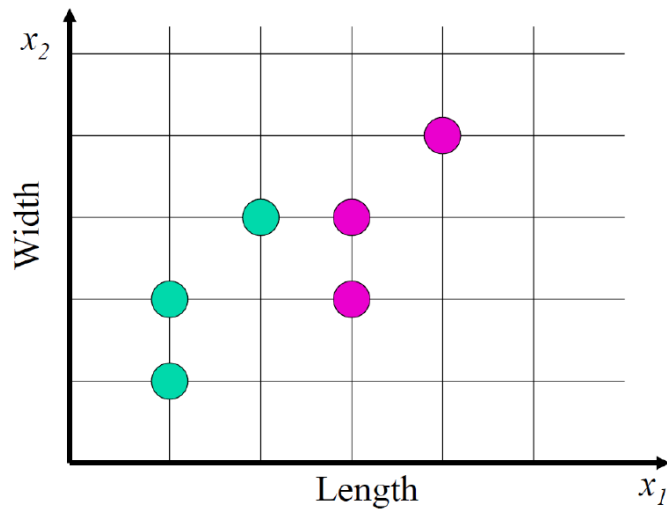- Dynamic System Identification
- Image compression
- Classification

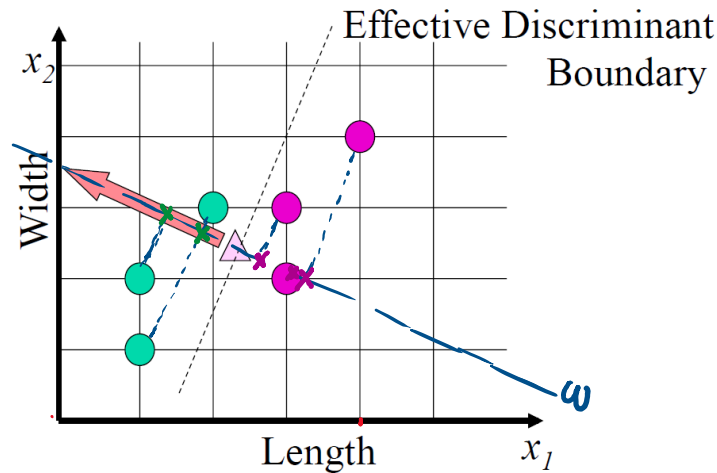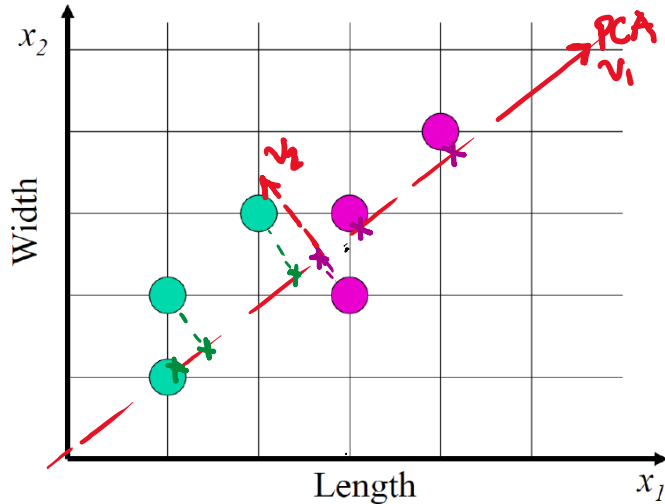Experiment Collect Data

$$X = \begin{bmatrix} | & | & & | \\ x_1 & x_2 & \cdots & x_{m-1} \\ | & | & & | \end{bmatrix}$$

Dogs v.Cats

- $x \in R^2$

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Effective Discriminant Boundary

$$\text{Projection onto } \omega : \quad y_i = \omega^T x_i \quad i = 1, \dots, 6$$
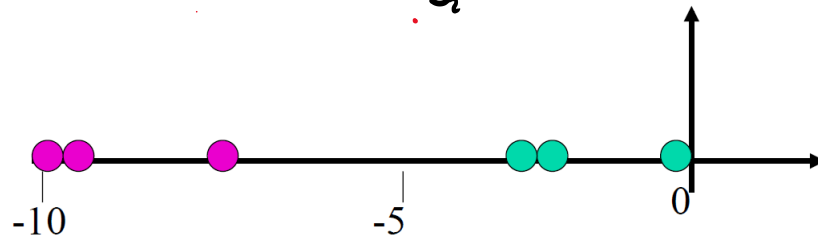
K-NN Classification

MATLAB

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