A comparison Of classifiers for oil spill detection

A.S.Y.Chiu
T.P.van Helden
S.S.Jahanshahi

Delft University of Technology

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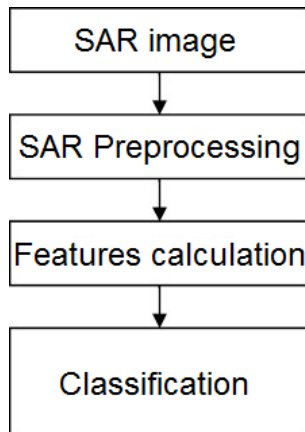
Overview

Introduction

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- What is an oil spill?
- Why is of importance to detect oil spill?

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┌─────────────────────┐
│     SAR image       │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│   SAR Preprocessing │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│ Features calculation│
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│                     │
│    Classification   │
│                     │
└─────────────────────┘
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SAR image

- Has high resolution
- Can monitor ocean 24 hours a day
- Covers large area
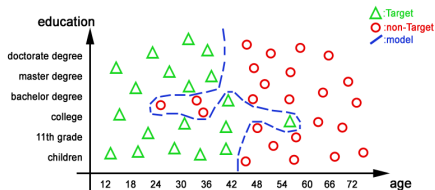
SAR preprocessing
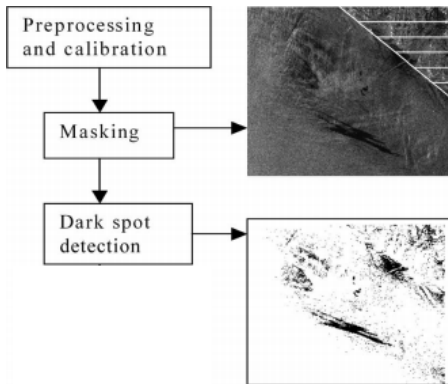
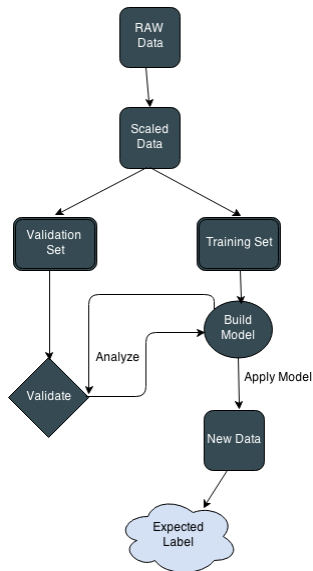# Features

- What is features?
- Type of features
    - Geometrical
    - Physical
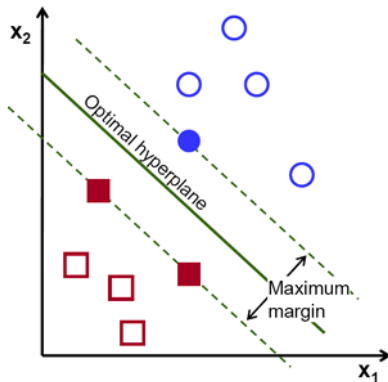   - Texture
    - Contextual

Feature Selection

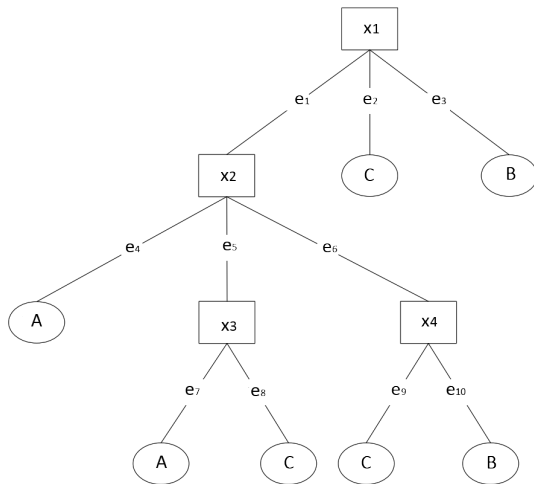- Choosing features
- Overfitting
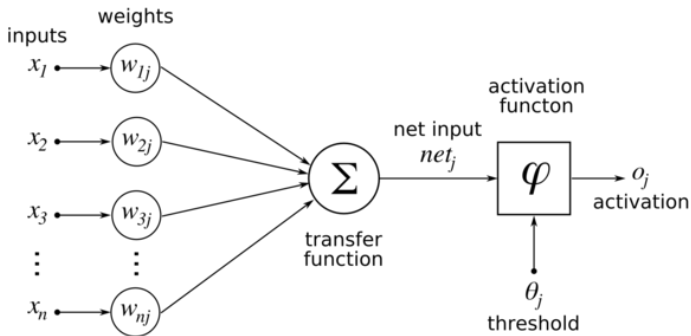- Curse of dimensionality

Supervised learning
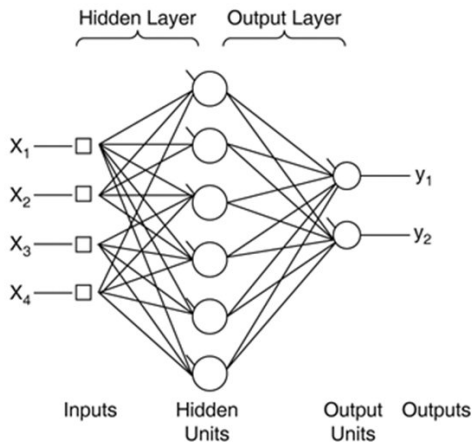
Support vector machines

Decision Tree

Perceptron

Multi layer perceptrons

Comparison of classifiers

- Free Lunch Theorem
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The End