

# Vehicle Silhouettes Classification

PA196 Pattern Recognition Project Topic

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# Problem

Dataset: Statlog (Vehicle Silhouettes) Data Set <sup>1</sup>

- 4 classes of vehicles: double-decker, van, 2 types of cars
- originally images, but extracted features available
- 846 examples, each of 18 attributes

Original approach: Siebert, J.P. *Vehicle Recognition Using Rule Based Methods*. Turing Institute, Glasgow, 1987.

- the rule tree classification, compared to k-nearest neighbour and minimum distance classifier
- not available anymore

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<sup>1</sup><http://archive.ics.uci.edu/ml/datasets/Statlog+%28Vehicle+Silhouettes%29>

# Goals

- pair-wise classification on classes and evaluating the results
- compare performance of different methods:
  - LDA
  - k-nearest neighbour
- possible extensions (if I'll feel confident enough)
  - SVM
  - multi-class classification