2Deep4U

Flash talk machine learning in practice

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Team

Members

- **Vangelis Kostas** Inception labeling, NN classification on inception
- **Kevin Jacobs** Inception labeling, NN classification on inception
- **Natali Alfonso Burgos** Deep learning, SVMs on inception
- **Thomas de Bel** Deep learning, Random forest on inception
- **Stijn Voss** Deep learning, SVM on inception

Current approach

Approach

- Processing of images through a pre-trained deep network (Inception BN)
  - image vectors of 1000 categories
  - working on business vectors (max. across images per bussiness)
  - feature reduction according to std.dev (resu1ted in 100ish features)
- Classification on image vectors
  - fully-connected NN (2 hidden layers, 254 nodes, 0.5 drop-out, 10% validation set)
  - SVMs: linear and polynomial kernels

Results

- Kaggle submission: Ranking position 80
- Best prediction accuracy: 0.67 (with NN)

Future Work

Inception BN

- use max-pooling layer output (work on features directly)

Classification

- Ada Boost
- Random Forest
- Bayesian Network (naive)
- Train our own DNN