

Status report - Siamese networks for instance retrieval

Matthias Kohl

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This report serves as a status report for the internship on siamese networks for instance retrieval, supervised by Georges Quénot and Jean-Pierre Chevallet, in collaboration with Maxime Portaz.

This report should not be seen as a scientific report. Instead, it is a simple overview of the main ideas and results of the internship so far and will be updated on the fly.

1 Introduction

DL -> Siamese -> problem statement (why instance search/discrimination not classif + motivations)

2 State of the art

Gordo + papers leading up to it

3 Methodology

Different approaches (nets + only classif or more...) Data augmentation ? Triplet selection ?

4 Evaluation

What do we evaluate, which datasets (what are the specifics)

5 Results

Current results for each approach

A Implementation details and specifics

PyTorch specific issues: large images/large batch sizes/large nets -> lots of memory