



Department of
Computer and Information Science

Report: Poker AI Implementation in Java

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IT3105 - Kunstig intelligens programmering

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1 Implementations for parts 1, 2 and 3

1.1 Basic framework

- all systems of all parts in one test environment
- own evaluation implementation to improve performance

1.2 Systems in part 1

1.3 Systems in part 2

1.4 Systems in part 3

2 Building our own textual entailment recognition system

2.1 Considerations from the prior systems

2.2 Plan and implementation

3 Results

- TreeDistMatcher combined with cost function

technique	parameters	threshold	correct
MahoutMatcher	10 fold cross-validation	avg. 0.5225 [0.475-0.55]	65.625% [57.5%-75%]
SynonymMatching	depth=2	0.675	63.375%
LemmaMatching		0.675	63.25%
LemmaAndPosMatching		0.625	62.875%
LexicalMatching		0.575	62%
BleuScoreMatching		0.425	61.875%
IDFLexicalMatching	depth=4	0.325	61.625%
IDFLemmaMatching		0.5	61.375%
BleuScoreMatching		0.5	61.25%
BleuScoreMatching	depth=3	0.425	61.125%
BleuScoreMatching	arithm. mean, depth=2	0.075	60.875%
LinSimilarityMatching	costs: WeightedLemma	0.35	60.5%
WordNetDistanceMatching		0.775	60.25%
TreeDistMatcher		0.725	57.125%
TreeDistMatcher	costs: WeightedIDF	0.4	55.75%
BleuScoreMatching	arithm. mean, depth=3	0.05	55.375%
BleuScoreMatching	arithm. mean, depth=4	0.05	51.875%
TreeDistMatcher	costs: FreeDeletion	0.05	51.7%

- very low threshold on some - consider seperately because of cross validation

4 Future plans and why we like to kiss erwins butt