Theory of Science (VIT)
Deliverables 1-6

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1 Deliverable 1

Summary: Our project will focus on the area of evolutionary computations, which is a subfield of artificial intelligence based on biological evolution. Our project will more precisely focus on genetic algorithms. The purpose of our project will be to build a generic game playing system and compare different gene crossover techniques.

Conferences: IEEE Conference on Computational Intelligence in Games
Acronym: CIG 2014
Link: www.cib2014.de
Submission deadline: 1st April, 2014

European Conference on Artificial Intelligence
Acronym: ECAI 2014
Link: www.ecai2014.org
Submission deadline: 1st March, 2014

Workshops: International Workshop on Game Theory and Economic Applications of the Game Theory Society
Acronym: IWGTS 2014
Link: www.iwgts.fea.usp.br
Submission deadline: 15th March, 2014

Workshops on Semantic Computing for Computational Intelligence and Creativity
Acronym: SCCIC 2014
Link: www.pa.icar.cnr.it/sccic14
Submission deadline: 15th March, 2014

2 Deliverable 2

Automated Number Plate Identification

Group: Elias Khazen Obeid, Simon Buus Jensen, Niels Sonnich Poulsen, Kent Munthe Caspersen, Sebastian Wahl

Abstract

We describe an automated system to identify the number plates of Danish vehicles in images. Haar Features are weak classifiers used to capture characteristics of number - plates. The best weak classifiers are boosted into a single strong classifier by the AdaBoost algorithm. The strong classifier is used for detecting the position of the number plate. We train a neural network to recognize the symbols of the number plate.

Overall the system needs improvement. As individual systems the subsystems mostly function satisfyingly. The results of the systems are as following: numberplate detectino gave a 16 % detection rate and 0.07 % false negatives. Corner detection found the right corners 80 % of the time. The segmentation system segmented 75 % of the images correct. Character recognition identified 95.83 % characters correct.

3 Deliverable 3

Summary

Communicate key ideas. Use repetition: tell them what you will tell them. Tell them. Tell them what you told them. Don't be bogged down i details. Remind the audience, don't just assume that the know. Structure the talk. Separate talk into sections: introduction, the body, technicalities, and the conclusion. Don't over-run the schedule. During question time, always be polite and don't be afraid of saying "I don't know."

My major weaknesses

1. Be concise and precise
2. Keep eye contact with audience
3. Control my voice and movement
4. Use the presentation method carefully
5. Be confident that the presentation is going well

4 Deliverable 4

Case A

1. **What should Alyssa do?** Alyssa should request funds to attend the conference, and then possibly file a complaint regarding the handling of the situation, or take a good solid talk with Ben.
2. **How should ben have handled the situation** Ben should have spoken up about the issue. Keeping quiet is never a good thing.
3. **Is it reasonable to have expected Alyssa to have behaved any differently** Alarm bells should be ringing the first time she submits a draft and gets no feedback from her adviser.

Case B

1. **Do you see any cases of irresponsible conduct?** Not really, it is quite normal that everyone in the group has different degrees of participation – and they decide to submit it as joined authors of their own free will. There is an element of discussion as to whether or not that Bob has done enough to be listed as a co-author, but since Anna doesn't dispute it, we can only assume that Anna thinks Bob has done enough.
2. **If so, what would have been the appropriate responsible conduct?** Anna should make some clear rules and requirements for being a co-author of the product.
3. **What actions should be taken in the present situation, if any?** If the paper has been accepted then there's really nothing to do. At some Universities, a PhD paper must contain a list of what contributions each co-author has made.

Case C

1. **If the experiments are part of a series, are Paula and her students justified in not publishing them together?** Yes, it's up to the three people to decide how they want to submit it, but it doesn't make sense to split it up.
2. **If they decided to publish a single paper, how should the listing of authors be handled?** Entirely up to the people in the project. Alphabetical, who has done the most work, who has the longest beard or the most hair..
3. **If a single paper is published, how can they emphasize to the review committees and funding agencies their various roles and importance of the paper** As for emphasizing roles: They shouldn't. As for emphasizing the importance of the paper: They can describe why they think the paper is important in the mail.

Case D

1. **How should the data from the two suspected runs be handled** They shouldn't remove the data points - they should be emphasized and explained instead. Why are the datapoints there? Did the power fluctuations have an impact? Can we run the test again?
2. **Should the data be included in tests of statistical significance and why?** The data should not be included at all in tests of statistical significance because of the possible errors, if someone needs to use the data, they should rerun the possibly-faulty tests before using them in the tests.
3. **What other sources of information, in addition to their faculty adviser, can Deborah and Kathleen use to help decide** The other group and professors.