You may complete this assignment on your own or with a partner of your choosing (I will more formally assign partners next week). If you work with a partner I will expect a somewhat more in-depth analysis of your paper - find the values of 4 or 5 parameters instead of just 2, or describe one of the experiments performed in some detail, or summarize how well the EA used in the paper performed on the given problem, etc.

Deliverables: 2 PDF files - Your report and the paper itself that you described. Include both PDF's in a single compressed (zipped) folder named with your Carleton username (or user1_user2 if you work with a partner).

PLEASE rename your folder BEFORE compressing it; if you compress the folder with some other name and just change the name of the compressed file, uncompressing the file yields a folder with the original name. This really helps me as I have scripts to allow me to grade blind, but they don't work correctly if after uncompressing I find I have 3 folders named "HW2". Thank you =)

Your Task

1. Find some sort of published paper that uses an Evolutionary Algorithm to solve a problem. Try searching google scholar for "evolutionary algorithm X" where X is something you're interested in. I tried "video game", "music", and "circuit design"; all yielded many interesting-looking results.

2. Read the paper - the whole thing, not just the abstract. This means you must be able to access the whole paper, many on google scholar have PDF's you can download.

3. Give the citation for the paper in your report (a full official citation, though you may use any standard form that you wish). If you click the "Cite" link below a google scholar article it will show you that paper's citation in several common formats. You will also include a PDF of the paper in your final submission.

4. Describe the problem researched in the paper. This should include (at a minimum):
- The task to be solved
- The inputs & outputs (if there are none say so)
- The representation of a candidate solution
- The evaluation method used
- Specifics on how fitness was calculated

5. Describe some of the EA parameters used in the paper; include at least 2, but more can't hurt! For example, you may find the population size, the selection method and any associated selection strength values, the criteria used to end an experiment, the mutation method and/or probability, the crossover method and/or probability, etc.

Expectations for Final Report
Your final submission should be about 1 page (1.5 pages if working with a partner). It should be organized, written clearly, and use complete sentences with proper grammar (except where short section headings or bullet points are more appropriate). Saying that makes me feel like a 4th grade english teacher but I have had some misunderstandings in the past. You will be writing several reports on your projects in this class, including a relatively substantial proposal and report for your final project, so I want to start off with clear expectations!

I have provided an example report I just wrote up describing a paper I published with some Carleton students 3 years ago (meaning I don't remember it well and so had to do at least some digging to find all of the info that I am asking from you). That should give you some idea of what I'm looking for.

Have Fun
Most of all, find a paper on something you think is cool or interesting and this will be fun! Keep in mind your eventual final project as you look through papers, flag any that you think might give you good ideas for that.