

# Extra Credit Assignment: Propose a Parallel Computing Assignment and Solve It

## 1 Spirit

Making good assignments for parallel computing classes is not easy. The assignment should be doable within a week or two. The assignment should highlight a non trivial form of parallelism. There should be some visible performance improvement to see. And ideally the assignment should be engaging, that essentially mean interesting enough that student are excited about solving them.

The problem is that what I find interesting may not be what you find interesting. Maybe I like movie, and you like music. So I have never thought of a great music assignment that is clear for you.

So the goal is for you to propose an assignment. And do that assignment to confirm its feasibility and work out all the quirks. If I like it, I'll run the assignment in a future instalment of the class and credit the assignment to you.

The assignment can use any technology we cover in the class an I would even entertain related ones.

You can do that assignment in pairs.

## 2 What to submit

Essentially three things:

- A piece of text that describe the goal of the assignment, what concept it is designed to test, where the problem comes from, sources of data, ...
- What would be given to students taking the assignment. That include a text describing the context of the assignment, the work to do, the scaffolding provided to the students (unit test, benchmarking scripts, skeleton codes, other tools).
- An example of what a completed assignment would look like.