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(Note I do apologize as I was working on the proposal I did not realize you want us to email you earlier about working solo. To be completely honest I have been struggling to go to all my classes as my parents got into a car crash recently and have been struggling to work even go to class right now)

## Parallelization of Sudoku Solver Using Backtracking Algorithm

### 1) Objective

The primary objective of this project is to parallelize a basic backtracking Algorithm Sudoku solver to reduce the time required for solving Sudoku. Implementing a backtracking search Algorithm to take advantage of multicore platforms by using parallelization. The objective is to explore multiple branches of solution to test for ways to reduce the time it takes to solve the sudoku board using parallelization.

### 2) Approach

- Start with the implementation of the board of sudoku into text files for the program to read (taking data from places such as the New York Times and boards that is built to be the worst-case scenario for backtracking algorithm)
- implement the backtracking algorithm
- look for place to take advantage of parallelization to help reduce the time it takes for the algorithm to run
- implement parallelization using pro monad
- test the solver and compare both the speed of the original backtrack vs one with parallelization

### 3) Deliverables

- Source code and readme.txt

