## Developing Strategies for Expert Crafting in Final Fantasy XIV - Checkpoint 1

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## **Updated Schedule**

Thus far, we have adapted actions into classes with static functions that can be called with the state as an argument. These functions update and return the state. We have also developed a class to represent the craft state. It is currently missing the evaluation function, and we need to work on tying it into the genetic algorithm.

We have also started work on the genetic algorithm. It works, but has difficulties with local maxima and its performance degrades over time. We have been given advice on how to improve the algorithm, and plan to implement it.

We predicted that we would start work on the simulator before the genetic algorithm, but ultimately ended up doing this in reverse order. For the next checkpoint, we plan to have the genetic algorithm and state representation tied together and to have improved our genetic algorithm, resulting in a simulation environment.

By the time we submit our project, we should have a refined algorithm and heuristic as well as test results that compete with the expert crafting leaderboards.

## Code

Github Repository (Checkpoint 1 snapshot): checkpoint-1