Injecting Machine Learning into the Apprentice Learner Architecture, Project Milestone Report 6 15-400, Spring 2020

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April 1, 2020

1 Major Changes

Due to software updates other members of the research team have made to AL (and general software updates), the agent type I've been building with for RumbleBlocks has changed. This means that the game state I'm giving to AL has to change, and so I'll need to find the proper input format to get the agent to work.

2 What I've accomplished since last meeting

Dr. Erik Harpstead found the old code for an interactive training interface for RumbleBlocks in a previous commit. I've taken the GUI code and put it back into the project, so the infrastructure for interactive training is in place. However, some "bugs" were discovered in the AL code. As it turns out, AL typically trains with an HTML CTAT tutor, which means that values are pulled from an HTML field with a "value" tag. That means that AL has been hard-coded to pull data from HTML fields, moving away from general state input. This was a TODO marked in the code base, and so Dr. Harpstead has put me in charge for the week to see if I can't get AL back to general input. Thus, that is my task for the next week or two (along with getting the new agent to successfully train in RumbleBlocks).

I also found a bug in the URL API for AL and submitted a pull request.

3 Milestone progress

I did accomplish **Create an interactive training interface in RumbleBlocks**, but with the caveat that agents are having trouble accepting the input, so that's my next step.

4 Surprises

Bug in input reading for AL. See above note.

5 Looking ahead

Ridding the hard-coded input "bug."