Phylanx Meeting

September 7, 2017

* Adrian, Hartmut, Ali, Bibek, Rod, Chris, Monil, Stefan, Kevin
* License Issues
  + Hartmut- I would not like to mix licenses as much as possible
    - Currently we are using PyBind and Eigen3 which are not Boost Licensed
* Monil-
  + Second year PhD. Student
  + Will work with us this Fall
  + Reading up on what you are doing
* Chris-
  + Contacted Almadena
    - Asked to be called back on September 11th when she is back in her office
  + Spent some time with PyBind
    - I like the solution
  + I have some questions:
    - How far down the symbolic space do we want to go?
      * Use optimizations like reducing X x1 to X
        + Theano, Tensor Flow, CasLite, SymPy
      * Adrian- I would focus on getting things working at first
      * Hartmut- I would try to do this in Python as it is usable by more people
        + We could look at SimPy
        + Chris- I will look into it
  + Can I build the bindings?
    - Hartmut- Everything should work now (on the Fixing GCC7.2.0)
  + I opened the list of primitives
* Stefan-
  + Been looking at the links that Chris sent around
    - Nothing seems hard but does require a shift in perspective
* Hartmut-
  + Promised last week to have the full pipeline for a minimal implementation
    - Expression tree is exposed to Python
    - Expression tree is in place
    - C++ Tool which takes a string and produces the AST
      * Exposed to Python as well
    - Working on implementing the primitives
      * Const primitive
      * Add primitive
    - Missing link between AST and expression tree
  + Done a lot of work on the build system
  + Chris-
    - Over the weekend I ported some algorithms
      * What would be the proper way of expressing a conditional
      * Hartmut- I was planning to encode conditionals in the AST
        + For the sake of simplicity I have only worked on mathematical expressions so far
        + After the pipeline is in place I think we could turn to this
* Rod
  + Set up CircleCI
    - Waiting to see if it is working properly
  + Writing tests to check to see if things work on Linux
  + Plan to start adding Python Bindings this weekend
    - Chris- Having another set of eyes on SimPy would be helpful
* Bibek-
  + Got Phylanx set up on my machine
  + Reading Spartan Paper
  + Documenting how to set up things on Linux
* Ali-
  + Worked on the build system on Linux
* Kevin-
  + Trying to get the build going
* Primitives
  + We have the ASL primitives
    - Bibek- I could look at coming up with a list of primitives for the logistic regression model
  + We have two primitives implemented
    - A loading primitive or a multiply primitives
      * Ali- I could look at this
      * Hartmut- We can focus on one locality for now
* Proposal
  + Adrian- I have created the new repo and have copied over the old proposal
    - I have updated the Milestones to reflect what we decided at the end of the kickoff meeting
  + Hartmut- Let’s talk about the proposal tomorrow on the Kate Isaacs Call
* Next Meeting: Thursday September 14th at 3pmET/2pmCT/12pmPT via Webex