Phylanx Meeting

September 28, 2017

* Adrian, Bibek, Rod, Parsa, Chris, Steve, Ali, Kevin, Monil, Stefan, Kate
* Chris-
  + Worked on the proposal
    - Added some paragraphs
    - Will push to the repo after I have reviewed the changes
  + Will look into the alternative funding method on Monday
  + Can we look at the primitives used by Spartan for logistic regression and ALS?
    - Bibek and Rod will look into it
* Kevin-
  + Grabbed the most recent code out of master and I am running into an issue
    - Have a work around
    - Chris- Also seeing issues
      * Steve- I have a pull request that should address this
  + Can we build HPX with Clang or Intel
    - Hartmut- I will look at this next week
* Monil-
  + Trying to build the repo as well
  + Learning about HPX
* Kate-
  + I have added some text to the repo
    - Still need to add it to the proposal
  + Working on getting HPX installed
    - What example should I use
      * Adrian- hello\_world for starters
      * Kevin- fibanocci for testing the trace
    - Use APEX to generate an OTF2 trace
* Stefan-
  + No updates
* Hartmut-
  + Trying to get the Python build under control
    - The problem is in the cross platform part...
    - Plan to address this next week
  + Chris- should we contact the PyBind people?
    - No we almost have it
* Steve-
  + Fixing the build
  + Creating Python bindings for the primitives
* Parsa-
  + Working on getting builds to pass
    - Problems with dot-product
    - Also working on transform
* Rod-
  + Started looking at ALS algorithm
    - Working on a simple implementation of it
  + Put together a collection of papers on polyhedral models as well as communication avoidance for optimizations
* Ali-
  + Working on the multiply primitive
    - Vector of operand
      * Have to check whether each values is scalar or not
      * Getting an error when combining several matrices and scalars
        + Hartmut- Push a two operand case for now
* Bibek-
  + Started working on the transpose
    - We need to put the name on the primitives we are implementing
  + Will start working on the exponential
    - Hartmut- We need a primitive that writes to a variable
      * Ali- I can do this one
* Chris- How should we handle errors
  + Throwing exceptions
* Phylanx Front-End
  + Some confusion over how the project will function
  + Currently we are parsing strings to produce the AST
  + We are planning to move to a python front-end which generates the AST
    - What Steve is working on
      * AKA Python bindings
* Phylanx Pace
  + Hartmut would like to see a primitive per week produced by each member of the HPX team
  + Hartmut- Rod and Bibek will take ownership of knowing which primitives need to be worked on and which are finished
* Proposal-
  + - Adrian- please have changes in by Friday
    - Parsa will go over it Monday
* Next Meeting: Thursday October 5th at 3pmET/2pmCT/12pmPT via Webex