Phylanx Meeting Notes

February 15, 2018

* Adrian, Hartmut, Steve, Rod, Bibek, Ali, Shahrzad, Kate, Chris, Stefan, Parsa, Bamba
* Chris
  + Working on tree transducers
    - Count statistics on trees
    - Hartmut- I will try to implement a transversal that you need
  + Made progress on Blaze algorithms
  + Looking into Tangent
    - Open source differentiation library
    - Hartmut- could you provide us with a use case
* Ravel
  + Kate-
    - Found a vis. application which could be a use case
  + Katie-
    - Thanks for the code support for vis.
    - Working on tools to allow users to see arbitrary performance data
* APEX
  + Kevin-
    - ECP intensity is over … for now
    - Went over the current project plan with Monil
    - Looking at Phylanx Counters
    - Fixed build issues on Mac
  + Monil-
    - Will be looking at Dask
      * Integrate this into our performance testing
* Tiling
  + Sent postdoc job description to HR
  + Played around with LRA example
* Primitives and Algorithms
  + Bibek
    - Slicing pull request
  + Ali
    - Created pull request for HighFive
  + Parsa
    - Interpreter pull request
    - Edits to performance counters
  + Shahrzad
    - “and”, “or”, and “!” pull request
* Python
  + Rod-
    - Implemented auto generation of OpenScope
      * Allows us to perform loop optimizations
      * Hope to this for polyhedral optimizations
      * Perhaps K-Means may be a good goal to test this out
        + ALS should be better
  + Steve-
    - 1D slicing pull request has been merge
    - Trying to get the HPX notebook running on Melete
* Adrian-
  + Uploaded the Phylanx Seminar videos
    - You can find a link on the Phylanx blog
  + Will schedule another Seminar next week
* Hartmut-
  + We have implemented an interpreter
    - Had to make some name changes to make this work
  + Refactored the way primitives were implemented
  + Adding the distributions Chris asked us for
* Goals
  + Ravel
    - Kate
      * Look through Dim reader
        + High dimensional renderer
      * Gantt chart
    - Katie
      * Interacting with Jupyter notebook
  + APEX
    - Look into the performance counters for primitives
    - Look at the relationships between tasks
  + Tiling
    - Full analysis of LRA
  + Algorithms and Primitives
    - Set values during slicing
    - Provide some changes to HighFive
    - Work on ALS algoritm
    - Work on K-means algorithm
  + Python Bindings
    - Restructure Phylanx source code
    - Merge OpenScope into Phylanx
    - Get Phylanx to run in a Jupyter Notebook
* Next Meeting: Thursday February 22nd at 3:30pmET/2:30pmCT/1:30pmMT/12:30pmPT via Webex