

Intro Talk - Ioana Ifrim

Previously

- Geant-val: a web application for validation of detector simulations - summer student @CERN
- MPhil Advanced Computer Science - Deep Learning and Robotics - @ University of Cambridge
- Generative models for simulation - fellowship @CERN

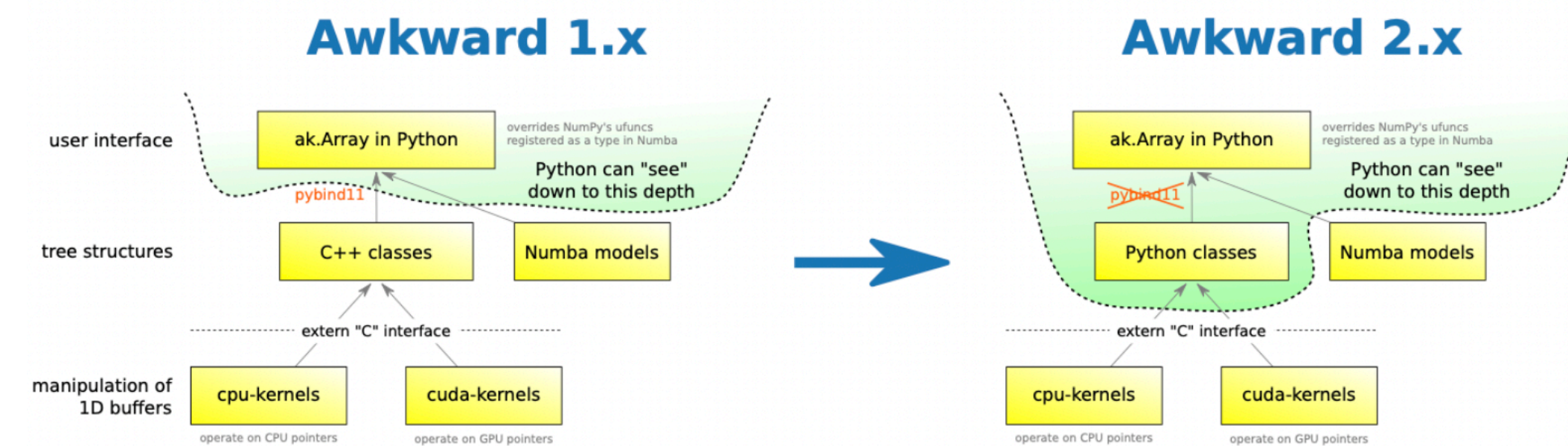
@Princeton

- Research Software Engineer:
 - AD for CUDA kernels with Clad;
 - xeus: Clad & xeus-cling, xeus-clang-repl: python and cpp in notebooks
 - Awkward v1 -> v2
 - Uproot maintenance and feature implementation
 - Helping with xeus-cpp dev (moving from cling to clang-repl)

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Python-Cpp-Integration-Demo (unsaved changes)
File Edit View Insert Cell Kernel Help Not Trusted C++11
+ ↶ ↷ ↵ ↶ ↷ ▶ Run ⏹ C ⏪ Code

Declaring variables in C++
In [1]: extern "C" int printf(const char*,...);
In [2]: int new_var1 = 12;
        int new_var2 = 25;
        int new_var3 = 64;

Running Python with C++ variables
In [3]: %%python
        from time import time,ctime
        print('This is printed from Python: Today is', ctime(time()))
        python_array = [1, 2, new_var1, new_var2, new_var3]
        print(python_array)
        This is printed from Python: Today is Tue Oct 25 11:38:08 2022
        [1, 2, 12, 25, 64]
In [4]: %%python
        new_python_var = 1327
In [5]: auto k = printf("new_python_var = %d\n", new_python_var);
        new_python_var = 1327
```





CS background: fixing issues, implementing requested features



CS background: being aware of physics users needs or applications