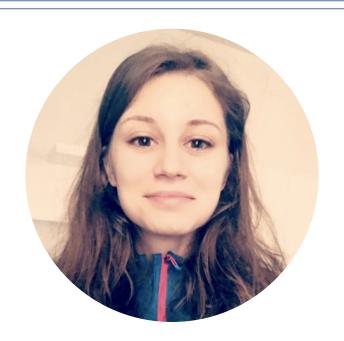
C++ as a service — rapid software development and dynamic interoperability with Python and beyond

Interactive C++: cling and clang-repl

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Status



- Ioana Ifrim started with us in mid-Feb
- A direct target is to get cling, clad and CUDA work well together

Status

- Progress on llvm patches:
 - Working on https://reviews.llvm.org/D91524
- LLVM9 landed in ROOT
 - We spent a week to stabilize and perhaps one more is needed
 - Will release cling with llvm9 soon after
- Started looking into building the cling plugins by default
 - That would help us expose clad to xeus-cling

Status

- Proposed a very limited version of clang-repl following the design of cling:
 [D96033]. Comments being addressed looks like we are converging.
- * Slowly advancing in executing C++ function using the CUDA backend in cling
- Preparing for the Google Summer of Code 2021
 - Very good early activity by students but also can be a time consuming task
- Early stage technical specification of the language interoperability layer here.
 - * We have not yet made a second revision based on this discussion. Meanwhile, additional comments are welcome.

Next Month Plans

- Prepare a third blog post
- Second revision of the interoperability spec

CaaS Open Projects

- Patches against clang.git
 - * Implement FileManager uncaching
 - * Adapt the user of invalidateCache to its new signature
 - * Mark the file entry invalid, until reread
 - Propagate cache flags from LookupFile() to FileManager::getFile()
 - * Pass the OpenFile flag also to DirectoryLookup
 - * Do not load the source file just to get an irrelevant SourceLoc (ROOT-7111)
 - * Allow interfaces to operate on in-memory buffers with no source location info [Pratyush Das]
- * Open projects are tracked in out open projects page.

Next Meetings

Monthly Meeting — 25th Mar, 1700 CET/0800 PST

If you want to share your knowledge/experience with interactive C++ we can include presentations at an upcoming next meeting

