C++ Club UK

Gleb Dolgich 2019-09-19

How long does it take to really master C++?

Reddit

If someone says they have mastered C++ they are lying. You don't master C++. Instead C++ masters you.

Elements C++ GUI library

https://www.cycfi.com/2019/07/photon-micro-gui/

• Reddit

C++ libraries for data visualization

- VTK https://vtk.org/
- ROOT https://root.cern.ch/
- matplotlib-cpp https://github.com/lava/matplotlib-cpp
 - matplotlib (Python) https://matplotlib.org/
- QCustomPlot (QT, GPL/commercial) https://www.qcustomplot.com/

CppCast - CMake and VTK with Robert Maynard

http://cppcast.com/2019/07/robert-maynard/

• Reddit

CMake line by line - creating a header-only library

http://dominikberner.ch/cmake-interface-lib/

Reddit

https://github.com/bernedom/SI

Professional CMake: A Practical Guide, 4th ed., CMake 3.15

https://crascit.com/professional-cmake/ \$30

Agner Vector Class Library V2

This is a C++17 class library for using the Single Instruction Multiple Data (SIMD) instructions in modern microprocessors.

https://www.agner.org/optimize/blog/read.php?i=1013

https://github.com/vectorclass/version2 (Apache 2.0)

Manual

https://github.com/vectorclass/manual/blob/master/vcl_manual.pdf

mdspan

- Implementation https://github.com/kokkos/mdspan (BSD 3-Clause)
 - Intro https://github.com/kokkos/mdspan/wiki/A-Gentle-Introduction-to-mdspan
 - r/cpp https://www.reddit.com/r/cpp/comments/cl127i/mdspan_p roductionquality_reference_implementation/
- Kokkos https://github.com/kokkos/kokkos
- Multi-dimensional strided array views in Magnum https://blog.magnum.graphics/backstage/multidimensionalstrided-array-views/
- P0009R9 mdspan: A Non-Owning Multidimensional Array Reference http://wq21.link/p0009r9
- CppCast with Bryce Adelstein Lelbach https://cppcast.com/bryce-lelbach-mdspan/

Clang Build Analyzer

https://github.com/aras-p/ClangBuildAnalyzer

Machine Learning with CPP

Reddit

- PyTorch https://pytorch.org/features has a pure C++ front end https://pytorch.org/cppdocs/
- TensorFlow for C++ https://www.tensorflow.org/api_docs/cc
- Shogun https://www.shogun.ml/

The sad history of Unicode printf-style format specifiers in Visual C++

https://devblogs.microsoft.com/oldnewthing/20190830-00/?p=102823

Reddit



Tony Van Eerd @tvaneerd

```
try {
    return vec.at(index);
}
catch (std::out_of_range const &) {
    return -1;
}
```

I just saw this in a code review and was going to claim it inefficient, but darn @CompileExplore proved me wrong again. (IIRAC*) All compilers turn it into an if check on the bounds.

*Read ASM

11h • 11/07/2019 • 22:56

Twitter: Generic cup



John McFarlane @JSAMcFarlane Accidentally accurate: apparently this mug is "generic".



Generic Cup<T> Two-Tone Coffe...

9h • 12/08/2019 • 14:56

Twitter: Electronics



Remy Goldschmidt @taktoa1

Electronics is like programming, except if you call a function with arguments of the wrong type, the function is deleted.

1d • 19/08/2019 • 01:38 •