C++ Club UK

Gleb Dolgich

2019-09-19

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/

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

- Reddit

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_productionquality_reference_implementation/
- Kokkos https://github.com/kokkos/kokkos
- Multi-dimensional strided array views in Magnum https://blog.magnum.graphics/backstage/multidimensional-strided-array-views/
- P0009R9 **mdspan**: A Non-Owning Multidimensional Array Reference http://wg21.link/p0009r9
- CppCast with Bryce Adelstein Lelbach https://cppcast.com/bryce-lelbach-mdspan/

Clang Build Analyzer

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

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

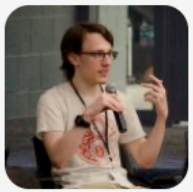
Accidentally accurate: apparently this mug is "generic".

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

zazzle.com

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