Eric Fiselier

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The resume of a passionate & curious problem solver.

My Code and Contributions

"The more that you read, the more things you will know. The more that you learn, the more places you'll go." -- Dr. Seuss

From work to recreation I take pride in what I do. These are just a few examples of times I went the extra mile, and what I learned from it.

I started learning Python and Java independently in 2009. Since then I have kept up a rapid pace; Learning, experimenting and playing. I consider my ability to learn and desire to grow as my biggest assets.

Ask me what I'm learning now?

LLVM's libc++ C++	libc++ is a C++ standard library that ships on Apple, FreeBSD, Android, and inside Google. I'm a primary contributor to libc++. Along with bug fixes and maintenance I focus on adding support for newly standardized libraries. This includes a large section of the library fundamentals technical specification. I also contribute patches to other projects under the LLVM umbrella.	2014 to Present
C++ Contracts Clang Implementation	Contracts are new feature targeting C++26 allowing safer and more expressive code. I'm excited to bring a production ready implementation to a compiler near you!	2024 to Present
The C++ Standard Documentation	I'm a member of the C++ Standard Committee. I work to improve standard C++ and it's libraries. I usually sit in the Library Working Group and help standardize libraries for new versions of C++. I also help triage and fix issues in the existing standard.	2014 to Present
constinit C++20 Feature	`constinit` is a C++ keyword which I designed and implemented in Clang before proposing for C++ standardization. The feature was accepted into the C++20 standard and is now available in all major C++ compilers. Having your own C++ keyword is pretty cool	2018 to 2021

Experience & Responsibilities

Bloomberg LP (Contract)	**C++ Contracts In Clang** I'm chiefly responsible for the implementation of C++ contracts in Clang. This requires both a deep technical understanding of the C++ standard and Clang's internals, and communication & community management skills to ensure the feature is well received.	2024 to Present
Google	**Healthier Code** Overall, my work focused on producing a healthier codebase using changes to the C++ standard, hardening of the standard library, and deploying clang tooling at scale. • **C++ Core Libraries & Large Scale Changes** Contributed to the development of core libraries, focusing on enhancing performance and stability. • **Large Scale Changes & Clang Tooling** Created & Deployed new tooling for analysis and refactoring of Google's 100M+ lines of C++ code. • **C++ Performance Improvements & Microbenchmarking** Investigated, designed, and tested performance and memory improvements across Googles most widely used and performance sensitive C++ libraries. • **Libc++ Releasing** Supported & unblocked the weekly toolchain integrate & release with time-critical debugging and bug fixes of libc++ & other core C++ libraries. • **Libc++ Kubernetes Infrastructure** I maintain multiple Kubernetes clusters for libc++, supplying most of the testing infrastructure. This taught me how to manage, upgrade, and maintain services at scale.	2017 to 2024
Bloomberg LP	**Bloomberg Standard Library Development** Developed standard-library like code following Bloomberg's rigorous development practices & standards.	2015
Google	**STL Micro-Benchmarks** benchmarking guided performance improvements resulting in significant efficiency improvements. Further, I developed benchmarking libraries allowing the faster development of more accurate micro-benchmarks.	2015
Coverity	**Compiler Frontend Validation** Compiler frontend verification through stress testing. Additionally, I contributed to the release process for Coverity's Clang tooling, reshaping the internal build system.	2014

Education

GPA: 3.67

Transcripts available upon request

University of Calgary	Bachelor of Science in Computer Science	2011 to 2017

Community

Being a part of the C++ community is important to me. I have regularly attend the following conferences

C++ Standards Committee	Helping to develop a newer & better C++ keeps my knowledge and skills on the bleeding edge
CppCon	Meeting my users and learning what they need helps me become a better developer

Skills

Languages:
- C++
- Python
- Your Language Here

Expertise:
- C++ Standardization
- Clang Development
- C++ Librarys @ Scale
- Performance micro-benchmarking

Facts:
- 1 billion daily active users
- 2,250 libc++ contributions
- Standard Council of Canada Member (ISO/IEC Member)
- Time's Person of the Year 2006

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