Nicole **Mazzuca**

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ABOUT ME

I am a software engineer who has long been fascinated by developer tooling and programming languages. I had an early start in the Rust community, then switched over to C++ six years ago. I absolutely love developer tooling for its customer-facing nature, and for the impact I can make in a customer's every-day experience.

EDUCATION

B.Sc. in Mathematics
Western Washington University
January 2018 - December 2019
New York University
Fall 2016
Associate of Art
Bellevue College – Running Start
September 2014 - July 2016

LINKS

@strega-nil
@streganil
Nicole Mazzuca

SKILLS

Expert in Modern C++
Experienced in Rust
Experienced in CMake
Competent in OCaml
Competent in JavaScript
Competent in Python

ACHIEVEMENTS

Spoke at CppCon 2017 and 2018
Helped run CSAW 2016

EXPERIENCE

Microsoft – Visual C++ Libraries - Software Engineer May 2022 -
- Maintainer of the Microsoft Visual C++ Standard Library
  - Code reviewed pull requests from open source contributors and colleagues
  - Implemented C++ standard papers – P2494R2, P2408R5, P2517R1, and P2520R0
  - Supported the Windows internal C++ toolset updates
  - Created a process for community members to add subtitles to our Video Code Reviews
- Address Sanitizer libraries implementor
  - Communicated with internal teams to discover issues and necessary features
  - Lead Standard Library/Address Sanitizer compatibility efforts – especially `std::string` ASan integration

Microsoft – vcpkg - Software Engineer January 2020 - May 2022
- Designed and implemented multiple major features which were blockers for enterprise customers and Visual Studio integration
  - Registries
  - Manifests
  - Localization
- Lead efforts to open lines of communication with community members
  - Added a #include <C++> channel for vcpkg
  - Worked to create an agreement for timely PR review
  - Created the vcpkg RFC process
- Lead the macOS pull request testing infrastructure efforts
- Code reviewed pull requests from open source contributors and colleagues

Microsoft – vcpkg - Software Engineering Intern July 2019 - August 2019
- Rewrote parts of the filesystem layer
- Rewrote the tests to be cross-platform using Catch2
- Added benchmarks to the tool
- Added hashing code to avoid calling out to platform-specific tools – Sha1, Sha256, and Sha512

SIGNIFICANT PROJECTS

#include <C++> 2018 -
- Founding member of, and moderator for, the #include <C++> community – the largest chatroom for C++ developers.
- We have a long-standing commitment for inclusion and diversity in the C++ community.
- Additionally, as part of my time in vcpkg, we opened an official vcpkg channel in the #include <C++> discord.

vcpkg Manifests May - September 2020
- I lead the charge on designing and implementing the manifests feature from its initial RFC to completion.
- Completely changed how users interact with vcpkg, while still supporting strict backwards compatibility with existing usecases
- The necessary first step towards bringing the C++ package management experience in line with other languages, with both package versioning and user-local installation fully depending on manifests.

vcpkg Registries September 2020 - March 2021
- Another major feature, necessary for enterprise customers, closed source libraries, and package versioning.
- Again, lead the charge on designing and implementing.
- Well-loved by the community: "[about registries] Isn't that beautiful. With Conan I couldn't come up with a working setup for this, and with vcpkg it just works with a minimal effort." (from this blog post)