Arthur O'Dwyer

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Professional software engineer with 16+ years of work experience in C, C++, and Python. Keen on low-level C/C++ platform and library design and C++ evangelism.

Work Experience

Senior software engineer, **Nominum** (acquired by **Akamai**)   C++14   May 2017—
· Domain expert in "modern C++" on the core engineering team

Author, **Mastering the C++17 STL**   English, C++17   Mar 2017–Sep 2017
· 350-page technical book distributed by Packt Publishing

Systems engineer, then senior SRE, **Mixpanel**   C++11, Python   Oct 2014–April 2017
· Event analytics service spanning 1100 machines in 7 datacenters
· Planned and executed the combining of separate datastores for events and user profiles
· Member of on-call team; ran incident postmortems
· Implemented C++ libraries for logging and JSON parsing/printing

Senior software engineer, **MemSQL**   C++11   Jul 2013–Sep 2014
· Distributed, lock-free, in-memory database compiling SQL to C++11
· Designed and implemented MemSQL's JSON column type
· Implemented a random SQL query generator in Python
· Reduced CMake build times from 1 minute to 1.5 seconds

Software engineer, **Push Computing** (acquired by **MobileIron**)   C++11   Apr 2012–Jul 2013
· iOS mobile device management
· Used Objective-C 2.0 (ARC) and C++11 in a production environment
· Wrote and released the N-way diff utility *difdef* under an MIT license

Designer, **Colossal Cave: The Board Game**   English   Nov 2010–July 2012
· Published with $15,000 raised from backers on Kickstarter

Contractor, **ReadThrough.com**   PHP   Sep 2011–Apr 2012
· Web backend to parse screenplays in several industry formats

Systems software engineer, compiler team, **Green Hills Software**   C++03   Aug 2006–Mar 2011
· Toolchain: Added end-to-end support for Unicode and x86-64
· Front-end: Added over 40 new diagnostics; upgraded to EDG 3.10
· Linker: Maintained Green Hills' optimizing ELF linker and reverse inliner
· Testing: Automatic generation and reduction of test cases

Education

Carnegie Mellon University: University Honors, **Phi Beta Kappa**   May 2006
· Dual B.S. in mathematical science and computer science

Other Skills

Expert knowledge of C++. **Showrunner of the San Francisco C++ meetup (2015–2018).** Speaker at CppCon 2014–2020; C++Now 2015, 2018–2019, 2021. Member of the ISO C++ Committee.

Deep knowledge of C, Python, Make, and CMake. Familiarity with **assembly languages** including PowerPC, ARM, MIPS, and x86-64. Numerous other programming languages, including Objective-C, SQL, Perl, METAFONT, Fortran, Inform, and Befunge

Euro gamer. Expert **juggler** and club passer. **Adventurer Grandmaster.** Life Scout; Order of the Arrow