

301 Monterey Blvd #5
San Francisco, CA 94131

(805) 448-4945
<http://www.club.cc.cmu.edu/~ajo>
<http://github.com/Quuxplusone>

Professional software engineer with 9+ years of work experience in C and C++. Attentive to both code clarity and implementation efficiency. Have written compilers, designed library APIs, and presented at C++Now.

Work Experience

| | | |
|--|---------------|--------------------|
| Systems engineer, then SRE, Mixpanel | C++11, Python | October 2014— |
| <ul style="list-style-type: none">· Event analytics service spanning 1100 machines in 7 datacenters· Ops experience: Munin, Nagios, Wavefront, Fabric, PagerDuty· Implemented C++ libraries for logging and JSON parsing/printing· Paid technical debts | | |
| Software engineer, MemSQL | C++11 | Jul 2013–Sep 2014 |
| <ul style="list-style-type: none">· Distributed, in-memory database compiling SQL to C++11· Implemented JSON datatype and a fast Unicode collation algorithm· Implemented a random SQL query generator in Python· Reduced CMake/GNU Make build times from 1 minute to 1.5 seconds | | |
| Software engineer, Push Computing (acquired by MobileIron) | C++11 | Apr 2012–Jul 2013 |
| <ul style="list-style-type: none">· iOS mobile device management· Used Objective-C 2.0 and C++11 in a production environment· Wrote and released the N-way diff utility <i>difdef</i> under an MIT license | | |
| Designer, Colossal Cave: The Board Game | English | Nov 2010–July 2012 |
| <ul style="list-style-type: none">· Published with \$15,000 raised from backers on Kickstarter | | |
| Contractor, ReadThrough.com | PHP | Sep 2011–Apr 2012 |
| <ul style="list-style-type: none">· Web backend to parse screenplays in several industry formats | | |
| Systems software engineer, compiler team, Green Hills Software | C++ | Aug 2006–Mar 2011 |
| <ul style="list-style-type: none">· Toolchain: Added end-to-end support for Unicode and x86-64· Front-end: Added 40 new diagnostics for error-prone constructs in C and C++· Linker: Maintained Green Hills' optimizing ELF linker and reverse inliner· Testing: Automatic generation and reduction of test cases | | |
| Intern, Microsoft Visual Studio Tools division | C# | summer 2005 |
| Intern, Spatial Integrated Systems | Matlab | summers 2003, 2004 |
| Junior member, Robocup (CMU's AIBO soccer team) | C++ | 2002–2003 |

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++, including C++14. Attended the Oct 2015 meeting of the ISO C++ Committee. Have spoken at CppCon 2014–15, C++Now 2015, and numerous C++ meetups.

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

Deep knowledge of the Green Hills toolchain, MISRA coding standards, and Mixpanel's API

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