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<http://www.club.cc.cmu.edu/~ajo>
<http://github.com/Quuxplusone>

Objective

Looking for a software development career utilizing my 4+ years of professional experience on large projects and my expert knowledge of C and C++. I'm particularly interested in compiler construction, program verification, and cooperation between tools and their users. I'd like to learn more about parallel and concurrent computing, both SIMD and MIMD.

Work Experience

Green Hills Software. August 2006–March 2011, software engineer. www.ghs.com

- Maintained Green Hills' optimizing ELF linker and reverse inliner
- Extended the existing 32-bit assembler to handle x86-64 assembly code
- Added features to the **Edison Design Group** C++ front-end and the **Dinkumware** template library
- Implemented UTF-8 wide character support
- Implemented over 30 new diagnostics for error-prone constructs in C and C++
- On the testing side, worked on **automatic generation and reduction of test cases**

Microsoft, Visual Studio Tools division. Summer 2005, internship.

- Designed a syntax-highlighting editor in C# using the VSIP libraries.

Spatial Integrated Systems. Summer 2003 and 2004, internships. www.sisinc.org

- Drivers, camera characterization, and feature detection using Matlab, C, and C++.

Weekly at *The Tartan*, Carnegie Mellon's student newspaper, on copy staff, October 2002–May 2006; as copy manager, 2003–2005

Volunteered on CMU's **Robocup** AIBO soccer team (a large C++ project), 2002–2003

Education

Carnegie Mellon University (May 2006): University Honors, Phi Beta Kappa www.cmu.edu

- B.S. in **computer science**
- B.S. in **mathematical science**
- Relevant coursework in operating systems (15-410), compilers, algorithms, and combinatorics

Richard Montgomery H.S., Rockville, Md. (2002): National Merit Finalist

- Sixth Subject project in computer science: a compiler for a small programming language
- International Baccalaureate diploma

Skills and Interests

Expert knowledge of the **C and C++** programming languages, plus x86 and x86-64 **assembly language**.

Familiarity with PowerPC, ARM, and MIPS assembly languages, and numerous other programming languages, including C#, Java, Python, Perl, ML, METAFONT, Inform, and Befunge

Expert knowledge of the Green Hills C and C++ toolchain and debugger

Experience with common version control systems (CVS, Subversion, Git) and trackers (JIRA, Bugzilla)

Conversant in Spanish. Minimal knowledge of Chinese.

Expert **juggler** and club passer. Avid Euro boardgamer.

Boy Scout (Life); Order of the Arrow (Brotherhood); **Phi Beta Kappa** '06