Arthur O'Dwyer

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Objective

Looking for a career in software engineering where I can put to good use my strong C and C++ background and my 4+ years of experience on large projects.

Work Experience

Full-time at **Green Hills Software**, August 2006–March 2011, in the compilers group. Designed new features and fixed bugs in a large C and C++ codebase (*http://www.ghs.com/*)

· Integration with the **Edison Design Group** C++ front-end and the **Dinkumware** template library

· Maintained Green Hills' optimizing ELF linker and reverse inliner

· Extended the existing 32-bit assembler to handle x86-64 assembly code

· Implemented **UTF-8** wide character support and standard library routines

· Experience with **automatic generation and reduction of test cases**

Internship at **Microsoft**, May–August 2005, in the Visual Studio Tools division. Designed and implemented a syntax-highlighting editor in C# using the VSIP libraries

Internships at **Spatial Integrated Systems, Inc.**, June–August 2003 and May–August 2004. Driver code, camera calibration and feature detection using Matlab, C, and C++ (*http://www.sisinc.org/*)

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

B.S. in **computer science** and B.S. in **mathematical science** (dual degree),
Carnegie Mellon University, May 2006. University Honors.

Relevant coursework in operating systems (15-410), compilers, algorithms, and combinatorics

IB Diploma from Richard Montgomery H.S. in Rockville, Md. (2002); National Merit Finalist; Sixth Subject project in computer science: a compiler for a small programming language

Skills

Expert knowledge of the **C and C**++ programming languages, x86 and x86-64 **assembly language.** Familiarity with PowerPC, ARM, and MIPS assembly languages.

Varying degrees of familiarity with numerous other programming languages, including C#, Java, Matlab, Python, Perl, SML, METAFONT, Inform, and Befunge

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

Familiarity with common applications (Excel), programming tools, and version control systems (Subversion, Git, CVS). Proficiency with typesetting and layout in (L^A)TEX and Adobe InDesign

Conversant in Spanish (six years of coursework 1997–2003); minimal knowledge of Chinese (five semesters 2002–2004)

Activities and Interests

Juggling (club passing), board games, quiz bowl, crossword construction, etymology

Boy Scout up to Life rank; earned membership in the Order of the Arrow

References available upon request.

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