

**Home:** 211 W. Sola St., Apt. E, Santa Barbara, CA 93101

(805) 448-4945

**Web:** <http://www.club.cc.andrew.cmu.edu/~ajo/>

## 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

Working at **Green Hills Software**, August 2006–present, in the compilers group. Designed new features and fixed bugs in a large C and C++ codebase (<http://www.ghs.com/>)

- Integration with **Edison Design Group** C++ front-end and the **Dinkumware** template library
- Maintained Green Hills' optimizing ELF linker
- Extended the existing 32-bit assembler to handle x86-64 assembly code
- Implemented **UTF-8** wide character support and standard library routines

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. Wrote utilities, driver code, camera calibration and feature detection software using Matlab, C, and C++ (<http://www.sisinc.org/>)

Worked 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 **mathematical science**, **Carnegie Mellon University**, May 2006

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

Deep 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, Perl, SML, METAFONT, Inform, and Befunge

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

Familiarity with common applications (Excel), programming tools (`grep`, `man`), and version control systems (Subversion, CVS). Proficiency with typesetting and layout in  $\LaTeX$  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

**Interests** in relationships between information and data, including programming language design, natural language processing, typography, graphics, game design, and elegant algorithms in all fields

**References available upon request.**