Robert Chin
836 Santa Rita Ave.
Los Altos, CA 94022-1130
rchin@uiuc.edu (217)721-1500
http://osiris.laya.com

Professional Summary

Available starting immediately. Has been teaching tutorial sessions on Objective-C and Cocoa as well as working on programming projects with MacWarriors, a Mac user group at UIUC for the last four years. Ten years of programming experience, with training in object oriented design patterns, frameworks and human factors. Bilingual (English/Mandarin Chinese), 2 years college level Russian.

CS Experience

Cocoa **Objective-C (4 years)**

Distributed Objects, AppleScript support for Cocoa apps (using sdef), system services, Quartz 2D drawing, Java-ObjC bridge, i10n using AppleGlot, altivec vectorization, NSThread, NSBundle dynamic loading, delegates, notifications, data sources (table/outline views), exception handling, pasteboards, key value coding, collections, undo support, printing, plists, serializations, notifications, timers, and Objective-C++. Extensive experience with the AppKit and Foundation, Xcode and Interface Builder. Also familiar with Keychain services, screensaver, WebKit and preference pane APIs.

UNIX **C (9 years), C++ (5 years)**

RPC, TCP/UDP protocol analysis with packet sniffers, sockets, pthreads, lex, yacc, NFS protocol, POSIX programming, writing daemonizing servers. Experience with gdb, gprof, cvs, subversion and perforce. MySQL C API, libxml2, STL.

Other

Familiar with design patterns and refactoring patterns. CRC cards for OO design.
OCUnit unit testing framework for Objective-C (programmer tests), unit tests, automated scripted testing.
Java (5 years), Smalltalk (2 years), Perl (5 years), C#/.NET (6 months)

Notable Courses

Object Oriented Programming and Design (at the graduate level): Frameworks design, design patterns, refactoring, and OO theory. Focusing on how to use patterns to write reusable code.
Communications Networks: Network communications theory, packet layout, OSI 7 layers, CRC, QAM, etc.
Human Factors in Human-Machine Systems: Design of human interfaces for machines; course project.
Engineering Psychology: Theory of designing systems and other human factors related subjects.
Programming Languages and Compilers: Parsing, lex, yacc, type inferencing, compiling.
Introduction to Artificial Intelligence: Bayesian networks, planning algorithms, Markov chains (and HMM)
Operating System Design: NachOS OS simulator, OS theory and work with filesystems and scheduling.

Education

2005 **BS, Computer Science, University of Illinois at Urbana-Champaign**
Application sequence in human factors.

2001 **Los Altos High School (Los Altos, CA)**

Awards

2nd Place, Trailblazer, University of Illinois Engineering Open House, 2004.
2nd Place, 3D File System Browser, University of Illinois Engineering Open House, 2002.
Eagle Scout, Troop 37, Pacific Skyline Council, 2000.

Work Experience

5/04 – 8/04 **Data Domain Inc., Intern Programmer**
Implemented a cross-platform (Linux, Solaris) API in C to allow third party backup applications to connect to a central data backup server via multiple transport protocols. Performed design, implementation and analysis of this asynchronous data backup network client.

5/02 – 8/02 **Space Systems Loral, Intern Programmer**
Designed, planned and implemented an extensible and pluggable cross platform graphical status monitoring application in Java.

5/01 – 8/01 **Space Systems Loral, Intern Systems Administrator**
Systems administration of UNIX (Solaris, Linux) based servers and workstations. Documented and created internal processes as well as wrote various programs to automate complex UNIX administration tasks.

5/00 – 8/00 **Proxim, Inc., Intern Quality Assurance Engineer**
Developed graphical and command line configuration software for commercial and test purposes. Also led a quality assurance effort on a high-speed wireless intra-building (point to point) networking product.

3/00 – 4/00 **GWCom (now mTone Wireless), Contract Programmer**
Wrote a gateway to bridge the Internet to a proprietary text format to allow GWCom handheld terminals to access the web. Operated completely transparently, requiring no modifications to the existing handheld software.

3/99 – 4/00 **GameShadow Networks, General Partner**
Founded an Internet gaming web site hosting company. Administrated Linux server, dealt with client questions, and performed general systems maintenance functions. Served over 50 clients and 200,000 requests per day. Appeared in the SJ Mercury News and on C-Net Radio.

5/97 – 8/97 **Lightscape, Intern Quality Assurance Engineer**
Wrote, debugged and tested automated test programs to verify functionality of a commercial product across multiple operating systems. Lightscape (now part of Discreet) created high quality 3D rendering software.

Major Projects

NicePlayer – http://niceplayer.indyjt.com/
A QuickTime movie player with borderless windows and a neat transparent overlay for controlling movie playback. I am the primary developer of this application.

iTunes Music Recommendation System – http://music.cs.uiuc.edu/
A music recommendation system based on a collaborative filtering algorithm. Generates music recommendations based on comparisons with other people who have similarly rated music in iTunes. Wrote and designed the complete server system using C and C++, and the Windows client using C# and .NET. Wrote the network protocol code for the Mac client. This was a three person project written for a senior project class lead by Ralph Johnson.

Smego – http://wiki.cs.uiuc.edu/cs497rej/Sm&%23275%3Bgo
A network computerized version of the classic board game Stratego, written in Smalltalk. Wrote all of the networking code.

Trailblazer – http://www.acm.uiuc.edu/macwarriors/projects/trailblazer/
A prototype web browser for the Mac with a graphical, session-based history and full text searching of pages in your history.

3DOSX – http://www.acm.uiuc.edu/macwarriors/projects/3dosx/
A 3D filesystem browser running under Mac OS X. Well-known among Mac users for its “aqua swimming pool” and spinning platters. A five person project using Objective-C, Cocoa and OpenGL. Wrote 30% of the 9000-line application.

Publications

Three Dimensional File System Browser. Crossroads (pp 16-18), NY: ACM Press, 2002.