

OTTO SCHNURR

Software Engineer

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SUMMARY

- Fourteen year career creating durable solutions for research and creative professionals.
- Concise, flexible, performance-sensitive software.
- Commitment to software as a master craft.

SKILLS

Languages: C++, Objective-C, Python, Java
Compilers: Xcode, gcc, CodeWarrior, Visual Studio
Tools: lint, doxygen, STL, svn, lex, yacc, make, bash, scrum

MOBILE AND RESEARCH EXPERIENCE

1995 - 2001, 2009

Short List for iPhone

Objective-C for iPhone

Lansing, Michigan
2009

Independently designed, scheduled, implemented and released an iPhone application.

Regression testing for the project currently passes over two-hundred and eighty test cases. See ShortListApp.net for more information.

Voice Chat System

Auvo Technologies

C++, Java for Unix, Windows

Itasca, Illinois
2000 - 2001

Leader of team that delivered voice and text chat in start-up company's first prototype.

Designed and implemented a multi-threaded real-time transport protocol engine for the platform.

Research and Development

Motorola Labs

C++, C, Java, JNI for Unix, Windows

Schaumburg, Illinois
1995 - 2000

Collaborated with linguists and engineers to create a high quality text-to-speech system using multiple neural networks. Developed a compiler for translating simulation results into optimized C++. The largest network contained over 200,000 trainable parameters and executed 100 times per second to synthesize speech in real time.

Enabled a range of machine learning techniques by refactoring the simulation engine into a new C++ design. Developed a tool for graphically configuring and training the simulations.

Represented Motorola as a member of the MPEG International Standards Organization.

Attended ANSI and ISO meetings in Japan, Finland, Dallas and Chicago. Researched, implemented, patented and contributed audio compression technology to the MPEG-4 reference software suite.

ANIMATION EXPERIENCE

2001 - 2008

Reflex Animation Tool

Digital Fish
C++, Objective-C for Mac OSX

San Francisco, California
(telecommute)
2007 - 2008

Improved pose-to-pose workflow by adding a pose mode to Digital Fish's animation tool.

Implemented a range of animation functionality to develop, edit, blend, time and preserve poses. Enhanced rig interaction by adding proxy geometry and diagnostics to the Reflex Markup Language. Collaborated with a globally distributed team on a full-time basis by attending daily scrum meetings.

Advanced Studies in Character Animation

Animation Mentor
Maya for Mac OSX

Berkeley, California
(telecommute)
2005 - 2006

Learned animation principles and workflows directly from feature film professionals.

Submitted shots and addressed subsequent feedback on a weekly basis for 18 months.

Animation Engine

Midway Games, Advanced Technology Group
C++ for PlayStation 2, Xbox, Game Cube, Windows

Chicago, Illinois
2001 - 2005

Contributed to the shipment of interactive entertainment products

by refactoring and extending one of Midway's proprietary animation engines. Each title deployed over one thousand sequences of animation across crowds of real-time characters.

Designed and implemented a new, blend-based animation engine.

Maintained backwards compatibility with legacy animation scripts by building a script compiler and interpreter for the new animation engine. Each game title used over one hundred thousand lines of script content.

GAME CREDITS

NFL Blitz Pro (2003), *NBA Ballers* (2004), *PsiOps* (2004), *Mortal Kombat* (2004), *Blitz* (2005)

EDUCATION

M.S. Electrical Engineering
B.S. Electrical Engineering

Digital Signal Processing
Magna Cum Laude

University of Michigan
Michigan Tech University

PATENTS

Method and Apparatus for Animating Virtual Actors From Linguistic Representations of Speech by Using a Neural Network

Patent Application
Filed 1997

System and Method of Encoding and Decoding a Layered [Audio] Bitstream by Re-Applying Psychoacoustic Analysis in the Decoder

Patent Number 6,092,041
Issued 2000