



Joachim Bengtsson
Code Poet

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Education

2008 ^ 2004	<p>Blekinge Institute of Technology (BTH) Undergraduate Program: Game Programming (Unfinished)</p> <p>Game programming at BTH is a three year software engineering program with emphasis on performance and 3D visualization. In addition to the program courses, I have studied AI and mobile communication.</p> <p>I considered myself a programmer long before I began my studies at BTH. However, with all that I've learned at BTH, that notion almost seems silly. I've gone from toys in VisualBASIC to template hacking in C++ and excursions in a dozen different languages, my favorite being ObjC. Even as a kid, I was interested in networking and network programming. I've continued along that path, but also developed an interest in game engine cores, scripting integration, and lately also sound programming.</p> <p>My candidate thesis is called 'Real-time acoustics modeling in games'. A bad balance of work and school has led to it still not being finished, and thus I don't hold my degree yet.</p>
2004 ^ 2001	<p>Söderportgymnasiet, Kristianstad International Baccalaureate Diploma Programme</p> <p>IB DP is an international secondary education/university preparatory program in English. I chose to study economy, chemistry and physics, in addition to the compulsory languages and math. I excelled (7 points) in physics and English.</p>

Work

.... ^ 2007	<p>Blekinge Institute of Technology Project Assistant</p> <p>Since December 2007, I've been employed by BTH (previously half time and now full-time) to be the project assistant for the school's new research labs. I spent the first six months as software archaeologist, restoring various old Java simulators. After that, I have been working in a team of four building distributed simulation software. The simulator has a peer-to-peer backend written in Erlang, and a Cocoa/OpenGL front-end, where I have been involved in both.</p>
2008 ^ 2005	<p>AB Spelguiden</p> <p>I have done a number of smaller consultant jobs on the side, but my biggest client has been Spelguiden. My work for them has involved touch screen kiosk clients in Cocoa, their backends in Rails and PHP, and various approaches to stores (via texting, web shop, via email, etc). Spelguiden have always been very pleased with the system and its development, even though I'm the lone programmer and designer for it.</p>

. . . . ^ 1998	<h2>Macdata AB</h2> <p>Macdata AB is my brother Michael's Mac shop. I've worked at and for Macdata to and from over the years. I did my first work practice as a service technician there in '98, which was repeated as a summer job for a few years. A few years ago, I built their online store. I also help out with custom solutions for their customers at times.</p>
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Skills

Programming Languages

Proficient	Average	Written a few apps	Have used
Objective-C	Python	Java	bash scripting
C	Javascript	Lua	x86 assembler
C++	Erlang	C#.NET	Experimented with Lisp, Haskell, Prolog, Io, Nu, ...
Ruby	SQL	(Visual/REAL) BASIC	
PHP	AppleScript		

Selection of Libraries and Technologies

Programming libraries: PSPSDK (Homebrew PSP), OGRE, OpenGL, FMOD, CoreAudio, J2ME, J2SE, Cocoa, CocoaTouch, CoreFoundation, CoreData, CoreAnimation, IOKit, ...

Web: Ruby On Rails, XHTML, CSS, jQuery, MySQL, ...

Computing: Macintosh System 3 to Mac OS X 10.6 (Mac user since I was a toddler), Unix systems (with all that this entails), Windows 95-7; XCode, Visual Studio 2005, NetBeans; Word, Excel, PowerPoint, Photoshop, Flash, ...

Summary

I'm an intensely curious programmer, which has made me something of a Jack-of-all-trades. However, I would say my areas of expertise (or rather, my favorite areas) are:

- [Mac development](#) and [Mac porting](#).
- User interface design
- [Game development](#), specifically [core](#), [sound](#) and [network](#),
- Embedding scripting languages into C-derivative applications; specifically [Lua](#), [Ruby](#) and [Python](#),
- [Touch screen applications](#)

Miscellaneous

I've written and released a few apps outside of work and education; these, together with a list of the results of my consultant jobs and other projects, are available at <http://thirdcog.eu/portfolio/>. See also Appendix I for an excerpt of Mac and game related projects in my portfolio.

I speak Swedish and English well, as well as some German (if my life depends on it). I have a driver's license.

I have been sound technician for three plays at Blekinge Kårpxex (a university amateur comedy theatre club) during college.

My blogs are over at overooped.com and twitter.com/nevyn.

Appendix I: Portfolio Excerpts

RMS (<http://www.friendlystapler.se>)

Role Project Manager; Sound sole developer; Core co-developer; sole Mac developer

Collaboration I was part of the [Friendly Stapler](#) team.

Description Rymdvarelser Mot Soldater is a cross-platform multiplayer only FPS game inspired by Alien versus Predator (it's literally "Aliens versus Soldiers" in Swedish), written as the second project in Game Programming, spanning 30 weeks. The first one was Robot (<http://www.robot-game.com/>) over 15 weeks. The big difference between Robot and RMS was that this time we had no artists, only programmers, and that we decided to implement most of the engine on our own, with almost no middleware.



[David Sveningsson](#) inherited my core and game logic code from Robot, which he heavily modified and I helped evolve. Apart from being project manager, my main responsibilities were the sound engine, which I worked to integrate into my candidate thesis ("[Real-time Acoustics Modeling in Games](#)"), and writing the OS interaction layer for MacOS.

Overload (<http://thirdcog.eu/apps/overload>)

Role Designer, Programmer, And Everything

Description Overload is a turn-based board strategy game for the iPhone. It's inspired by a Palm game with the same name written ten years ago by David Graham. With permission, I've tried to port it to a few other platforms, and I used it as a Hello World for learning iPhone coding. It's a fantastic feeling to have made a real, published commercial game. It's available for \$2.99 in iTunes App Store.



Other excursions in programming



[LuaPlayer](#) was a collaboration with Frank Buß, bringing Lua to the Sony PSP as

a homebrew app. I added sound and rewrote the Lua API to be object oriented (...). It helped many non-programmers write their first game and still has a semi-active community.

I was invited to EuroOSCON in 2005 where I had a session on LuaPlayer hacking.



[Soundflower by Cycling '74](#) can be used as a system audio output

device, but then volume controls don't work anymore. I hacked 'em in. My modified version is bundled with all Rogue Amoeba apps.

[Mac Frameworks](#) is a project on my site (thirdcog.eu/apps/frameworks) where I properly package open source cross-platforms libraries as .framework bundles to make it easier to use them in Mac games.



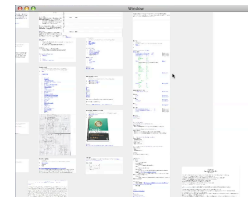
[Mutable Adventure](#) is my latest excursion in game network programming. It's a 2D

platform adventure MMO game written in Python.



[Cfxr](#) is a weekend hack port DrPetter's [sfxr](#) properly to MacOS

(instead of using SDL), and to learn CoreData.



[Goopad](#) is a weekend hack exploring zoomable interfaces (ZUIs) and experimenting

with Core Animation. It visualizes any VoodooPad document spatially. Goopad hasn't been released.