

Jonathan Simon :: Resume

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About

I am a user interaction designer and engineer focused on crafting wonderful products for people to use. In order to create these products, I have acted as a software engineer, architect, interaction designer, team lead, and author. I thrive in dynamic and creative multidisciplinary teams that are equally focused on crafting user-driven products. Additionally, as an engineer with a broad background, I also work well in larger teams facilitating communication and collaboration between often disparate disciplines, including fostering tight collaboration between engineering and design teams.

My engineering background is broad, ranging from Java/Swing rich desktop clients and Ruby on Rails web apps to cross platform mobile development. My recent experience is focused primarily on mobile development with a strong emphasis on Android and Java mobile technologies, in addition to development on iOS platforms. I am currently writing Head First Android Development for O'Reilly, a highly visual and brain-friendly guide to Android development fundamentals.

Skills

technical Mobile: Android, iPhone, BlackBerry, J2ME
Java: J2SE/J2ME/J2EE, Swing, AWT, LCDUI, Lucene, Velocity, ANT, ANTHIL, Hudson, Maven, JSyn (Java Synthesis Engine), JavaSound, JavaWebStart, GANT, Groovy
Other: Ruby on Rails, HTML/CSS, PHP, processing, Python
IDEs: IntelliJ IDEA, TextMate, Eclipse, JBuilder
Source Control: CVS, Subversion, Perforce, SourceSafe
Audio: Pro Tools, Peak, Cubase, Audacity, MAX/MSP, csound
Visual: Photoshop, Illustrator, Dreamweaver

interaction design High and Low fidelity prototypes
Usability tests
Requirement facilitation
Focus group facilitation

Industry Experience

2006 – 2011 **QUALCOMM**, Staff Engineer: Team Lead, Senior User Interface Engineer and Interaction Designer, Atlanta, GA (Telecommute)

Mobile Payments (Business Development)

Developed numerous proof of concepts and demos for a new mobile payment initiative at Qualcomm.

- Completely developed a fully functional Android client as the sole developer within two weeks of starting on the project. This was used for numerous demos including funding decisions by the CEO of Qualcomm in addition to outside payment consultants, and internal sales and marketing partners.
- Participated in strategic planning meetings with several payment specialists and consultants to determine how to position the new product.

SWAGG

Lead the cross platform architecture (Android and iPhone) of a mobile gift card app. This involved a combination of hands on development, development management, architecture, and facilitation between platform specific development teams, business analysts, and the user experience team.

- Due to complex business logic in purchase flows, the app had over 150 screens. In order to simplify the process of documenting, developing, and testing these screens, I created a set of document templates and process for designing and creating the screens. I then implemented a user interface framework to correlate the code with the documentation set from the UX group. This resulted in simplified development, and an extremely simplified process of managing changes across the entire application before deployment.
- Developed cross platform architecture documents detailing architectural similarities between the platforms, as well as differences between the platforms to keep the interaction feeling native. All of this was done without specific authoritative control over the platform specific development teams. This was accomplished by creating architectural requirements documents rather than explicitly detailing all parts of the architecture. This resulted in development teams maintaining independence while guaranteeing architectural goals were met.

Mobile Banking

I shaped the client architecture and design for a mobile banking application. I helped bring the client from a very primitive beta native Java/J2ME app while the company was in a small startup mode to a mobile platform that has been live for over 2 years and is successfully running on over 200 devices including iPhone, Android, Blackberry, BREW, and Windows Mobile operating systems. I've worked on this project since nearly its inception and guided the client architecture as the market moved from the older 12 key (think Motorola RAZR) devices, to the new smartphone marketplace. During this time, the startup (Firethorn) was purchased by QUALCOMM to develop its

mobile commerce offerings.

- Created, lead and implemented an architecture for shared logic between Java based devices including multiple Android devices, multiple BlackBerries, Java touch screen devices and older 12 key Java devices. Once a model was setup to abstract platform specific APIs, this allowed us to write business logic (controller and model logic) once and used identically across all Java devices while seamlessly switching user interface toolkits from our own custom toolkit to native toolkits. This architecture also allows easily overriding specific business logic for a specific device.
- Developed a complete object oriented scripting build system using GANT (Groovy, plus ANT) to help manage the complex build requirements of 150+ devices, half a dozen carriers, and pre-loaded applications.
- Designed and implemented a custom Canvas-layer user interface framework with a full suite of components, layout managers, custom font support, navigation tools and visual customization. The entire framework is under 30 kB. This was essential in the days when application size – including all resources and libraries – had to be under 180kB.
- Developed prototypes and lead design decision analyses among business analysts, developers, company stakeholders, carriers and banks.
- Worked with user experience groups at multiple carriers and financial institutions to ensure consistency with the carrier user experience.

Technologies: Android, iPhone, J2ME, Eclipse, WTK, ANT, Maven, Hudson, Subversion, DeviceAnywhere, BlackBerry JDE, Groovy, GANT

2006 **CollabNet**, Consultant, Brisbane, CA (Telecommute)
Community Manager and Technical Editor for Sun Microsystems' Sun Grid Cloud Computing Engine, JXTA, and SunSource communities.

- Wrote technical articles for the Sun Grid Community to run and improve Sun Grid applications
- Conducted interviews with community members and leaders
- Managed community news including press releases, announcements, and information about upcoming events
- Monitored and reported on community statistics

2003 – 2006 **Merrill Lynch**, Senior User Interface Developer and Interaction Designer, New York, NY

Designed and implemented the user interface for a Repo bond trading system.

- Managed the interaction design process between business analysts and traders in New York, London, Toronto and Tokyo
- Developed a custom user interface framework to allow traders to view related information, allowing them to easily browse the complex interrelated information space of repo trades
- Developed a detailed development and testing approach using a combination of server stubs and isolated simulators to allow the user interface development and testing to move forward independent of any server requirements
- Managed a team of user interface developers to implement the system using agile techniques from extreme programming
- Pioneered the use of Lucene to search a complex hierarchical object space, allowing traders to use search syntax to quickly find trades

Skills: Swing, JavaWebStart, Velocity, Lucene, IntelliJ IDEA, ANT, ANTHILL, CVS, JUnit

2002 – 2003 **Liquidnet**, Interaction Designer, New York, NY

Lead a team of business analysts and developers designing enhancements to the graphical interface of a community based Equity trading system.

- Implemented a prototyping and design decision making process
- Developed high fidelity Java-based prototypes
- Ran usability tests on trading floors around the country with the prototypes
- Moderated discussions among business stakeholders and customers related to user interaction

Skills: Swing, JavaWebStart, Talarian, IntelliJ IDEA, ANT, Perforce, JUnit, Jython, DeployDirector, InstallAnywhere

2000 – 2002 **JP Morgan**, Java Swing Developer, New York, NY

Implemented a Swing-based graphical user interface for a Bond price calculation and publishing system.

- Developed a custom table model / data transfer object framework

- Worked extensively with threading and timing to guarantee correct price changes in the market during peak market periods

Skills: Swing, JavaWebStart, Tibco, Sitraka JClass, JBuilder, ANT, SourceSafe

Recent Community Web Projects

- 2006 **stevansimon.com**
Created a Ruby on Rails website where family members share text, audio, and images of our grandfather after his passing.
- 2006 **anbarlab.org**
Developed a community website in Ruby On Rails for a Geology lab at Arizona State University allowing lab members to maintain profiles of their research activities and interests.

Publications

- book chapters* **J Simon** "Integration Patterns in Practice: A Bond Trading System Case Study." Enterprise Integration Patterns. G Hohpe, B Woolf. K Brown. Boston: Addison-Wesley Professional, 2003. 603 - 624.
- J Simon** "Search Through JTables Easily." Swing Hacks. J Marinacci, C Adamson. Sebastopol: O'Reilly Media, 2005.
- J Simon** "Add Status Bars to Windows." Swing Hacks. J Marinacci, C Adamson. Sebastopol: O'Reilly Media, 2005.
- J Simon** "Build an Audio Waveform Display." Swing Hacks. J Marinacci, C Adamson. Sebastopol: O'Reilly Media, 2005.
- J Simon** "Add Velocity for Dynamic HTML." Swing Hacks. J Marinacci, C Adamson. Sebastopol: O'Reilly Media, 2005.
- articles* **J Simon**. "Interaction Happens: Prototyping Techniques." java.net. 23 August. 2005. <<http://weblogs.java.net/pub/a/today/2005/08/23/prototyping.html>>.
- J Simon**. "Interaction Happens: Thinking Graphically." java.net. 12 July. 2005. <<http://today.java.net/pub/a/today/2005/07/12/visualizations.html>>.
- J Simon**. "Pixel Pushing." java.net. 7 June. 2005. <<http://today.java.net/pub/a/today/2005/06/07/pixelpushing.html>>.
- J Simon**. "Developing Swing Components Using Simulated Servers." java.net. 19 October. 2004. <<http://today.java.net/pub/a/today/2004/10/19/stubs.html>>.

J Simon. "Developing Swing Components Using Simulators." java.net. 23 June. 2004. <<http://today.java.net/pub/a/today/2004/06/23/simulators.html>>.

J Simon. "Rethinking Swing Threading." java.net. 24 October. 2003. <today.java.net/pub/a/today/2003/10/24/swing.html>.

J Simon. "Scripting with Jython Instead of XML." java.net. 10 June. 2003. <<http://today.java.net/pub/a/today/2003/06/10/jython.html>>.

J Orr, D Geary, A Kang, J Long, T Modi, V Roubtsov, H Sheil, **J Simon**, F Sommers, D Steinberg, E Swensen, M Yuan, J Zukowski. "Java Tools Reign Supreme." JavaWorld. 9 June 2003. <<http://www.javaworld.com/javaworld/jw-06-2003/jw-0609-eca-p1.html>>

J Simon. "Update Distributed Applications." JavaWorld. 22 November. 2002. <<http://www.javaworld.com/javaworld/jw-11-2002/jw-1122-autoupdate.html>>.

J Simon. " Intelligent data keeps Swing simple." IBM DeveloperWorks. 22 January. 2002. <<http://www-106.ibm.com/developerworks/java/library/j-idata/?loc=j>>.

conference presentations P Burk, N Didkovsky, **J Simon.** (2003) "Interactive Audio Applications in Java." *Technical Session. JavaOne*, San Francisco, California, 2003.

GL Nelson, R Price Jones, **J Simon.** (2000) "Interactive Audio Applications." *Poster Presentation. ACM Special interest Group for Computer Science Education (SIGCSE)*, Austin, Texas, 2000.

P Burk, **J Simon.** (2000) "Introduction to JSyn." *Lecture Demonstration. NUMUS*, Aarhus, Denmark, 2000.

white papers **J Simon.** "Rich Java Client Deployment in the Enterprise." Sitarka (Now Quest Software). December 2002.

tutorials **J Simon.** "Integrating audio with Java applications." IBM DeveloperWorks. July. 2002.

Professional Activities

guest lecturer New York University: Java Music Systems.
Professor: Nick Didkovsky, Spring 2004.
Topic: *Implementing Audio Phasing with Java and JSyn.*

reviewer S Holzner. ANT The Definitive Guide, Second Edition, Sebastopol: O'Reilly Media, 2005.

invited blogger java.net <<http://today.java.net/pub/au/5>>

Professional Affiliations

Associate Member of Sigma Xi, The Scientific Honors Society
Member ACM
Member ACM SIGCHI
Member UPA

Education

- 2000* **B.M. Percussion Performance**
B.M. TIMARA (Technology in Music and Related Arts)
Oberlin College Conservatory of Music, Oberlin, Ohio
- 1997* **New World School of the Arts High School, Miami, Florida**