

# Sharon Minsuk

(510) 393-2465

<http://sharonminsuk.com/>

- Experienced software engineer with a reputation for bug-free code.
  - Native iOS / Objective C development (4 years); experienced with git. Some Swift, C++.
  - Previous web dev experience (3+ years): JavaScript/jQuery, CSS3 animations, PHP, MySQL.
  - Browser extensions for all major browsers (including for IE, in C++).
  - Past work in assembly language (strong, 7 years).
  - Ph.D. UC Berkeley, B.S. Stanford U.
  - Special interests: biological simulation/modeling, control of medical devices / lab instrumentation
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## Experience

### 2016-present **Senior iOS Engineer, TiVo Corp.**

(Rovi bought TiVo, and the merged organization took the name TiVo.)

- Continued to develop great new features for the Fan TV iPhone and iPad app in Objective-C.
- Since July, switched to the companion iOS app to the famed TiVo DVRs. Complex mix of Swift, C++, Objective C, and Haxe. Perforce.

### 2015-2016 **Senior iOS Engineer, Rovi Corp.**

- Developed features for the Fan TV iOS app. TV and movie aggregation/discovery.
- Live TV and Video-on-Demand streaming.
- Native iOS/Objective C; git.

### 2012-2015 **Web and Mobile development, GREE International, Inc.**

Native iOS/Objective C:

- Developed features for GREE's popular game "Kingdom Age".
- Contributed features to our other flagship RPG games, "Modern War" and "Crime City".
- Refactored/rearchitected to create a shared core game engine for the three games.
- Extensive experience with git.

Web:

- Developed features for the HTML5 game NFL Shuffle. JS, PHP, CSS3 animations.

### 2010-2012 **Front end / full stack web development, Kachingle**

- Transformed our JavaScript/jQuery widget, eliminating numerous bugs to make the component vastly more robust and reliable in the face of the near-infinite number of environments in which it must run; designed and developed new features in both the front and back end (PHP); and made it work properly on mobile devices for the first time. This earned me "ownership" of that code.
- Introduced elements of CSS3 and HTML5 into the product where needed.
- Broke through a major conceptual barrier in the overall design of Kachingle's product, which was limiting our opportunities to expand our customer base. Then I implemented the solution, which required browser extensions, so I figured out how to write them for Firefox, Chrome, Safari, and Internet Explorer, using JavaScript and C++. This project inspired a major initiative involving the entire company and a new marketing campaign.
- Took on increased responsibility for the entire code base and more ambitious projects, including the website and the financial back end (PHP and MySQL).

- 2008-2009 **Career transition projects**
- Left academia to return to commercial software.
  - Camera control module for microscopy image acquisition software (C++, Windows, Visual Studio).
  - Self-taught C++, courses in C# and Java; Visual Studio, NetBeans, Xcode.
- 2007-2008 **Adjunct Professor, Merritt College (Oakland, CA) and St. Mary's College (Moraga, CA)**
- Courses taught: microscopy and digital imaging; general biology.
- 2004-2006 **Biological computer simulation project, Konrad Lorenz Institute for Evolution and Cognition Research (KLI), Altenberg, Austria (postdoctoral fellow)**
- Independent investigator: conducted original research, from conception through design and implementation. Developed innovative simulation for modeling cell biomechanics.
  - Coded in C, Carbon API, Mac OS X, Xcode. Demo: <http://sharonminsuk.com/evodevosim>
  - Won competitive KLI fellowship; published peer-reviewed research paper.
- 1989-2003 **Biology research, including biological computer simulation project**
- 1997-2003 Research postdoctoral fellow: Indiana U., Bloomington, Dept. of Biology
- 1989-1997 PhD student, then visiting researcher: UC Berkeley, Dept. of Molec. & Cell Biology
- Biological computer simulation project.
    - Coded in C, Unix on a Sun workstation.
    - Simulated biomechanical cell interactions during frog embryo development.
    - Contributed critical insight and momentum to flagging project, resulting in publication.
  - Won competitive research grants (NIH, UC).
  - Research publications: 6 as primary author, and several others as collaborator.
  - Laboratory research in embryology/evolution; microsurgery, microscopy.
- 1985-1989 **Clinical diagnostics software, Areca Science Corporation, Palo Alto, CA**
- Software for use in sleep disorders clinics.
  - Designed and implemented all parts of project (real-time collection of analog data, analysis of physiological episodes, user interface), in a 2-person development team.
  - Coded in 6502 Assembly language, Pascal.
- 1982-1984 **Educational software, Teaching Tools Software, Inc., Mountain View, CA**
- Developed several products for pre-school and K-6 children for school and home.
  - Solely responsible for code design and implementation.
  - Team member for overall conceptual and GUI design, and product documentation.
  - Won *Learning Magazine's* 1983 Outstanding Software of the Year Award for "Square Pairs" (memory game, part of Scholastic, Inc. *Wizware* product line).
- 1982 **Educational software, Stanford University Mathematics Dept., Palo Alto, CA**
- "Newton's Method", dynamic graphics software for teaching calculus concepts.
- 1981 **Educational software, Indianapolis Children's Museum, Indianapolis, IN**
- "Vector Racing" and "Lunar Lander", interactive games for teaching concepts of vectors, velocity, and gravity to elementary and junior high school students.

- 1980      **Database software, Beckman Instruments, Bioproducts Dept., Palo Alto, CA**
- Database application for pharmaceutical research project to catalogue results of experiments on peptide structures.
  - Solely responsible for design and implementation.

## **Education**

**Ph.D.**      1995, **University of California, Berkeley**, Molecular and Cell Biology

**B.S.**      1982, **Stanford University**, Biological Sciences

**Foreign Languages:** Fluent German; rusty French, Spanish