

# WILLIAM J. FETH

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**SUMMARY:** Experienced iOS and macOS software engineer seeking a challenging role with a team that creates cutting edge and intuitive technology and aims to surprise and delight customers.

**EXPERIENCE:** **Sr. Software Engineer – iOS Memories & Final Cut Pro Teams, Video Apps Division**  
*Apple Incorporated: Cupertino, CA* *January 2014 - May 2017*

- Responsible for movie editing user interface in the iOS Memories feature in Photos, which automatically creates curated movies of your most meaningful photos and videos.
- Communicated regularly with designers and testers to refine movie editing features.
- Worked with lead engineers to define how user-editing affects automated movie-creation.
- Implemented unit tests that flagged regressions as the movie-creation algorithm evolved.
- Contributed to performance regression tests to monitor trends in CPU and memory usage.
- Championed gathering of aggregate usage statistics for iOS Memories features.
- Received accolades for communicating well and resolving difficult issues on the team.
- Prototyped and developed other unreleased capabilities for the iOS Memories feature.
- Worked with designers, engineers, and testers to prototype, implement, and troubleshoot features of the role-based timeline and related UI in Final Cut Pro and iMovie for macOS.
- Periodically refactored and simplified architecture and APIs to reduce “technical debt.”
- Completed Stanford Machine Learning class through Coursera in January 2017.

**Sr. Applications Software Engineer – iBooks and iBooks Author Team, iWork Division**  
*Apple Incorporated: Cupertino, CA* *September 2010 - December 2013*

- Architected and implemented interactive, multitouch components featured in iBooks 2.0 for iOS, including interactive CoreData-based quizzes, movies, 3D objects, and more.
- Architected and implemented features in iBooks for macOS, including Night reading mode, support for asian text, and ePub3 background pagination and layout using WebKit.
- Implemented features for iBooks Author 2.0, including UI for editing MathML and LaTeX.
- Eliminated abandoned memory, optimized performance in iBooks on iOS and macOS.
- Prototyped and implemented interactive, gesture-based animations on iOS.
- Integrated SceneKit support for interactive 3D widget, and debugged OpenGL problems.
- Worked extensively with iOS team to integrate media player and solve playback issues.
- Aggressively managed bug queue and scrum team task backlog under fixed deadlines.

**User Interface Framework Engineer – Pro Applications Division**  
*Apple Incorporated: Cupertino, CA* *July 2005 - August 2010*

- Collaborated with designers and application engineers to implement and troubleshoot components of ProKit, a Cocoa user interface framework for Apple's Pro applications.
- Worked with OS teams such as AppKit and Xcode to evolve new features for ProKit's use.
- Created prototypes that allowed designers to quickly converge on a “Pro” appearance for UI elements; prototypes used GLSL-like CIFilters that could be built into production code.
- Taught two-day Interface Builder training class for the ProApps design team.
- Delivered Interface Builder plugin features to streamline ProApps UI development.
- Encapsulated and augmented macOS “iLife” media browser for Pro applications.

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## **Technical Lead – Media Fusion Project**

*Silicon Graphics, Incorporated (SGI): Mountain View, CA*

*2004 - 2005*

- Co-developed specifications for a software system for manipulating streams of live media content in a collaborative 3D virtual environment based on OpenGL Performer.

## **Technical Lead – Linux Release Team**

*Silicon Graphics, Incorporated (SGI): Mountain View, CA*

*Fall 2004*

- Coordinated efforts of five teams to integrate their software into SGI ProPack for Linux.

## **Member of Technical Staff – Scalable Graphics Software Division**

*Silicon Graphics, Incorporated (SGI): Mountain View, CA*

*2000 - 2004*

- Designed, implemented, and fixed performance bottlenecks in components of OpenGL Multipipe, a multi-process, multi-GPU, C++ software layer that enabled OpenGL applications to scale graphics performance and screen resolution without modification.

## **Software Engineer (Co-op Internship)**

*NASA Jet Propulsion Laboratory: Pasadena, CA*

*Summer 1998, Fall 1997*

- Developed OpenGL Performer visualization software for Mars Rover Control Workstation.

## SKILLS:

- 12 years of Cocoa/Objective-C experience, 6 years native iOS development experience.
- Tuning memory, CPU, and graphics performance using Xcode, Instruments.
- Prototyping with CoreAnimation, Quartz Composer, and Photoshop.
- Agile / scrum development process.
- Other experience: Swift, ARC and non-ARC memory management, CoreData, OpenGL, GLSL, C/C++, STL, PERL, HTML, CSS, XML, ePub3, JavaScript, Linux, IRIX, Java.
- 3 years college coursework in spoken and written Japanese. Last visited Japan in 2005.

## EDUCATION:

### **Computer Science, Master of Engineering**

*Cornell University, Ithaca, NY*

*2000*

### **Computer Science, Bachelor of Science**

*Cornell University, Ithaca, NY*

*1999*

College of Engineering Dean's List

## AWARDS:

**U.S. Patent 9513883 B2** – Technique for UI element design and automated layout. *2016*

**U.S. Patent 8441499** – User interface contrast filter. *2013*

**U.S. Patent 7868893** – Integration of graphical content into another application. *2011*

**U.S. Patent 7140024** – Managing graphics applications across multiple GPUs. *2006*

**SGI Spirit Leadership Award** – Employee-nominated, awarded annually to 1% of employees. *2004*

**Boy Scout Eagle Award** *1995*

## INTERESTS:

International culture and foods, travel, origami, video games, singing, hiking.