



Jeff Lutzenberger, PhD

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SUMMARY

I'm a creative, artistic programmer and manager up for any technical challenge. I love developing great software with exceptionally talented people. I'm a super happy guy with excellent technical, management and leadership skills.

EXPERIENCE

Senior iOS Developer, Pulsara

Bozeman, MT — 2014

iOS and back end developer building a mobile application to facilitate communication between EMTs and ERs in treating people experiencing stroke, sepsis and heart attacks.

- Full stack development: AWS/EC2, PHP, Ruby, JavaScript, iOS

Director of Product Development, WebFilings

Bozeman, MT — 2014

Technical leader in a 200 person development organization focused on delivering a SaaS-based collaborative office suite. In addition to providing technical direction, I wrote code in this position almost every day.

- Grew our Bozeman office from 15 to 60 people in 1.5 years
- Directed our document translation team and hit every deadline along the way
- Directed a team focused on semantic analysis of tabular data
- Mentored junior managers

Engineering Manager and Platform Product Owner, WebFilings

Bozeman, MT — 2014

Led a team developing a SaaS-based collaborative office suite. Technologies included EC2, Google App Engine, Google Compute Engine, REST APIs and BigTable.

- Built an amazing team focused on server side typesetting in Python on Google App Engine
- Earned a patent for server side typesetting
- Successfully moved all document translation from AWS to Google App Engine

Senior Software Engineer, WebFilings

Bozeman, MT — 2012 - 2013

Lead engineer and platform architect at WebFilings. Worked on SaaS-based collaborative office suite. Technologies included EC2, Google App Engine, Google Compute Engine, REST APIs and non-relational databases. I wrote a lot of Python.

General Specialist, Hellroaring Micromachines, LLC

Bozeman, MT — January 2010 - Present

My LLC for profitable iOS products and MEMS consulting.

iOS Products

- **Honey Badger Pocket Edition (4 out of 5 stars in the App Store)**
- WS Beam Calculator, WS Mohr's Circle, WS Steel Shapes
- Particle based puzzle game in development (custom OpenGL ES rendering system with a few cute GLSL tricks)

Technical Architect, Oracle

Bozeman, MT — November 2011 - June 2012

I designed and implemented custom RightNow implementations for **Sony, Yahoo, Drugstore.com** and others.

- Spent 1 month working on a Sony Global implementation out of Oracle's North Sydney office and 1 month in Oracle's Tokyo office.
- Successfully delivered one of RightNow's largest implementations
- Worked exclusively with high profile, "marquee" clients

Lead Application Engineer, Oracle

Bozeman, MT — November 2010 - November 2011

Implemented custom RightNow deployments for **Yahoo! and Drugstore.com**.

- Top Performer Award 2011, Passion of RightNow Award Q3 2011, Top Team Award Q3 2011

Graphics Programmer, Integrated Engineering Software (IES)

Bozeman, MT — January 2001 - October 2010

Designed and developed 2D and 3D rendering systems in **C/C+, OpenGL and DirectX**. Developed finite element analysis algorithms for structural analysis software.

- The rendering systems I created for this company are still in use today
- Implemented a meshing tool capable of meshing re-entrant polygons entirely with quadrilaterals

SKILLS

- **Web** Python, Go, PHP, Ruby, JavaScript, REST, Google Cloud Platform, Amazon Web Services
- **Graphics** C/C++, OpenGL, OpenGL ES, DirectX, HTML Canvas, WebGL
- **Mobile** Objective-C, iOS, OpenGL ES, Quartz 2D
- **Product Management** Agile, Scrum, Kanban, Jira
- **Dev Process** Git, Jira, Jenkins, Bamboo
- **Math** Linear Algebra, Numerical Solutions to Differential Equations, Finite Element Analysis, Elasticity, Continuum Mechanics
- **People** Approachable, humble, ability to drive product and motivate teams, proven leader as a director of product development

EDUCATION

Montana State University - Bozeman

Doctor of Philosophy (Ph.D.), Engineering — 1999 - 2005

Interdisciplinary doctorate in Electrical Engineering and Applied Mechanics. Developed a technique to increase rigidity in thin films by incorporating repeated cell structures. Spent two summers at Stanford's micro-fabrication facility building miniature mirrors (100 um - 1 mm in diameter).

PATENTS

DOCUMENT SERVER AND CLIENT DEVICE DOCUMENT VIEWER AND EDITOR

United States Patent 8,504,827 B1

Issued February 27, 2013

Inventors: [Jeff Lutzenberger](#), [Shane Sizer](#), [Ben Echols](#), Graham Cummins, Gary Orser, [Jeff Trom](#)

PUBLICATIONS

Fabrication and modeling of rib-stiffened thin films

Journal of Micromechanics and Microengineering, v 19, 2009

May 1, 2009

Authors: [Jeff Lutzenberger](#), [David Dickensheets](#)

Analysis and Design of MEMS scan mirrors using periodically stiffened silicon nitride

Dissertation (Ph.D.) Montana State university-Bozeman

May 15, 2006

Author: [Jeff Lutzenberger](#)

An improved focus control mirror using SU-8 wafer bonding process

Proc. SPIE 7930, 793005 (2011); doi:10.1117/12.876672

February 14, 2011

Authors: [Jeff Lutzenberger](#), [Mohammad Moghimi](#), [David Dickensheets](#)

Variable-focus SU-8 membrane mirror with enhanced stroke using feedback control

IEEE LEOS, OPTMEMS 2009, p 141-142, 2009

August 17, 2009

Author: [Jeff Lutzenberger](#)

Periodic rib-reinforced silicon nitride scan mirrors

IEEE LEOS, July 2005

August 1, 2005

Author: [Jeff Lutzenberger](#)

Large area molded silicon nitride micro mirrors

Photonics Technology Letters, IEEE, v 15:10, October 2003, p. 1407-1409.

September 23, 2003

Authors: [Jeff Lutzenberger](#), [David Dickensheets](#), Todd Kaiser

Stiffening Members for Flatness Control of Surface Micromachined Structures

Proceedings of SPIE - The International Society for Optical Engineering, v 4561, 2001, p 238-246.

Author: [Jeff Lutzenberger](#)

Silicon nitride biaxial pointing mirrors with stiffening ribs

Proceedings of SPIE - The International Society for Optical Engineering, v 4561, 2001, p 276-282.

Author: [Jeff Lutzenberger](#)

Numerical Analysis of Blast Loaded Civilian Structures

Thesis (M.S.) Montana State University-Bozeman

Author: [Jeff Lutzenberger](#)

MOEMS deformable mirrors for focus control in vital microscopy

J. of Micro/Nanolithography, MEMS, and MOEMS

June 1, 2011

Authors: [Jeff Lutzenberger](#), [Mohammad Moghimi](#), Brant Kaylor, [David Dickensheets](#)

2D Drawing in iOS

BigSky DevCon 2012

August 4, 2012

Author: [Jeff Lutzenberger](#)

A Service-Oriented Architecture Survival Guide

BigSky DevCon 2013

June 22, 2013

Author: [Jeff Lutzenberger](#)

Getting Started with Google App Engine

Google Developer Group DevFestMT 2013

November 2, 2013

Author: [Jeff Lutzenberger](#)