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 800+ employee 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 implimented custom RightNow solutions 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

REFERENCES

Jeff Trom, Managing Director and CTO, WebFilings

Contact info available on request

Dave Tucker, Sr. Director of Platform Development, WebFilings

Contact info available on request

Roderick Peace, Director of Product Management, Oracle

Contact info available on request

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