Matthew William Jibson

1908 Sage Drive
Golden, Colorado 80401

c 303-902-6948
✉ matt.jibson@gmail.com
w http://mattjibson.com/

Areas of interest

Digital synthesis of pipe organs and pianos. I have written a paper on a method to synthesize pipe organs, referenced below. This research still has open problems.

Education

2009	**M.S., Electrical Engineering**	
	Colorado State University	
	ADVISOR: Tom Chen.	
2007	**B.S., Computer Engineering**	
	Colorado State University.	
2007	**B.M., Piano Performance**	
	Colorado State University.	

Work Experience

June 2011-present	**Seagate Technology**	
	Sr. Engineer, *Firmware Organization*	
	Custom tools and infrastructure support in mostly Python and SQL.	
2000-present	**US Geological Survey**	
	Consultant	
	Java programs for seismic analysis.	
June 2007-May 2009	**Innovative Advertising**	
	Primary Developer	
	Designed and created an online system for local ad distribution.	
May 2008-Dec. 2008	**Seagate Technology**	
	Intern, *Firmware Organization*	
	Replaced a failing, 3rd-party, business-critical application with a custom tool.	
June 2006-May 2007	**Apictura, LLC**	
	Intern	
	Wrote with JSP and Java EE servlets, networking services, servers, and other programming tasks.	
May 2005-Jan. 2006	**SpectraLink**	
	Intern	
	Wrote Wireshark dissectors in C for propietary wireless protocols.	
May 2004-Aug. 2004	**IBM**	
	Intern	
	Java tool to improve productivity of the printer analysis team.	

Awards

2007
2nd place in the Colorado State University Senior Design E-days Awards in Electrical Engineering.
A dual electronic & pipe organ was built an FPGA, custom windchest, and donated pipes and keyboard.

2006
Wendel Diebel Award from the Colorado State University Music Department for outstanding musicianship.

Software Development

2000-present
SLAMMER
Programs for seismic analysis in Java (primary developer).

Sep. 2011-present
Journalr
A website for online, modern journaling in Python and Google App Engine (founder and developer).

2009-2010
Mission Office
A system and website for management, automated statistics, and office work of a medium-sized, distributed organization in Python and Google App Engine (creator an developer).

2007-2009
Biosensor
Analysis and graphing system for results of potentiostat expirements in Django (creator and developer).

2002-2008
Crescent Island
A multiplayer, online game in PHP and MySQL/PostgreSQL (principal developer).

Publications

1. UNPUBLISHED WORKS

Jibson, **M.W.**, *Electrochemical Biosensor Array Characterization*, M.S. Thesis in Electrical Engineering, Colorado State University, May 2007.

Jibson, **M.W.**, *Organ Sound Synthesis by Harmonic Interpolation*, 2009.[PDF]

2. SOFTWARE

Jibson, R.W., Rathje, E.M., **Jibson**, **M.W.**, and Lee, Y.W., in press, SLAMMER—Seismic LAndslide Movement Modeled using Earthquake Records, *U.S. Geological Survey Techniques and Methods*, on CD-ROM and Internet.

Jibson, R.W., and **Jibson**, **M.W.**, 2003, Java programs for using Newmark's method and simplified decoupled analysis to model slope performance during earthquakes, *U.S. Geological Survey Open-File Report 03-005*, on CD-ROM and Internet.

Jibson, R.W., and **Jibson**, **M.W.**, 2002, Java programs for using Newmark's method to model slope performance during earthquakes, *U.S. Geological Survey Open-File Report 02-201*, on CD-ROM.

Jibson, R.W., and **Jibson**, **M.W.**, 2001, Programs for using Newmark's method to model slope performance during earthquakes, *U.S. Geological Survey Open-File Report 01-116*, on CD-ROM.