

**William C. Thibault, Ph.D.**  
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## Education

University of New Orleans	Computer Science	B.S., 1981
Georgia Institute of Technology	Information and Computer Science	M.S., 1985
		Ph.D., 1987

## Work Experience

1987-present	Professor	Dept. of Mathematics and Computer Science California State University, East Bay
2000-2007	Consultant	Obscura Digital, Inc. ( <a href="http://www.obscuradigital.com">www.obscuradigital.com</a> ) San Francisco, CA
Spring 2000	Visiting Scientist	Fachhochschule Bieder Basel Basel, Switzerland
1994-1996	Consultant	Sound Traffic Control San Francisco, CA
1991-1992	UNIX Systems Programmer	TRW Financial Systems Berkeley, CA
1986	Ph.D. Candidate	AT&T Bell Laboratories Murray Hill, NJ
1981	Programmer	Health Management Systems New Orleans, LA

## Publications

“Camera-based Calibration for Scalable Immersive Rendering,” William Thibault, in Proceedings of ACM SIGGRAPH 2010, (Los Angeles, July 2010) (poster) <http://www.mcs.csueastbay.edu/~tebo/SIGGRAPH2010.pdf>

“Method for simplifying the imaging of objects with non-Lambertian surfaces,” Niklas Lundback, Travis Threlkel and William Thibault, US Patent No. 7,717,574, May 18, 2010.

"Inexpensive Immersive Projection," Nancy P.Y. Yuen and William C. Thibault, Proceedings of the IEEE Virtual Reality Conference (VR 2008) (Reno, NV, USA, March 2008). <http://www.mcs.csueastbay.edu/~tebo/papers/yuen.pdf>

"A genetic algorithm for solving the camera-projector alignment problem," Johnson, C.M., Bhat, A.P., and Thibault W., Proceedings of the Genetic and Evolutionary Computation Conference (GECCO '06) (Seattle, WA, USA, July 8-12, 2006), Morgan-Kaufmann, San Francisco, CA, 2006. <http://www.mcs.csueastbay.edu/~tebo/papers/pp130-johnson.pdf>

``Grabbo by Tebo Software," in The BeOS Bible, Scott Hacker, Peachpit Press, 1999.

``Sound Traffic Control: An Interactive 3-D Audio System for Live Musical Performance," Naut Humon, Bill Thibault, Vance Galloway, Garnet Willis, Jessica Wing, International Conference on Auditory Display, Glasgow, Nov. 1998. <http://www.mcs.csueastbay.edu/~tebo/papers/icad98.pdf>

``Experiences in Digital Terrain," Bill Thibault and Scot Gresham-Lancaster, Leonardo Music Journal, Volume 7, MIT Press, 1997.

``Songlines.DEM," Bill Thibault and Scot Gresham-Lancaster, Proceedings of the 1992 International Computer Music Conference, San Jose, Oct 1992. <http://www.mcs.csueastbay.edu/~tebo/Songlines.txt>

``Merging BSP Trees Yields Polyhedral Set Operations," Bruce Naylor, John Amanatides, William Thibault, Computer Graphics, 24(4),(Proc. ACM SIGGRAPH '90), Anaheim, July 1990. <http://www.mcs.csueastbay.edu/~tebo/papers/siggraph90.pdf>

``Set Operations on Polyhedra Using Binary Space Partitioning Trees," William C. Thibault and Bruce F. Naylor, Computer Graphics, 21(4), (Proc. ACM SIGGRAPH '87), Anaheim, July 1987.

"Class Constructs in Hardware Simulations" (abstract), William J. Mitchell and William C. Thibault, 1981 ACM Computer Science Conference, St. Louis, February 1981.

## Invited Talks

"Camera-based Projector Calibration" presented at the Louisiana Immersive Technologies Enterprise, jointly with the University of Louisiana at Lafayette, Lafayette, LA, May 27, 2008.

"Compcore: Cyberinfrastructure for Interdisciplinary Research," presented at the Special Session on Interfacing Computer Science and Biotechnology at the 20th Annual CSU Biotechnology Symposium, Oakland, CA, Jan 11, 2008.

## Performances

"Calpurnia", telematic performance, Internet2 Fall Member Meeting, Irvine, CA, October 29, 2002.

Performances with "Very Important Now" (Sam Ashley and Scot Gresham-Lancaster):

- [incubator:how2gather](#) at [HyperWerk](#) in Basel, Switzerland, June 2000.
- [at The Delivery Room and Caffè Sappore in San Francisco, November 1999](#)
- "Garden of Memory: a Columbarium Walk-Through Event at Chapel of the Chimes," Oakland, July 1998
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"Variations II," by John Cage, with [The Hub](#), Mills College, February 96.

"[Terrain Reader](#)," computer music lecture/performance, Interactive Sound Studio, Exploratorium, San Francisco, Summer 94.

"[Bill and Jim Play Along with the Electroacoustic Masters](#)," with Jim Horton, audio recording, Frog Peak Music, 1994.

"Gorgeous Clothed Flies," by 4D City; "Cult 45," by Guns For Tibet, videotapes, Jerry Hunt Memorial Concert, San Diego, April 94. "Terrain Reader," interactive computer music installation, CSUH Art Gallery, Hayward, April 94.

"Songlines.DEM," interactive computer music installation, International Computer Music Festival, Spartan Chapel, San Jose State University, San Jose, Oct 92.

"Terrain Broadcast," with Scot Gresham-Lancaster, live 5-hour computer music broadcast from KPFA-FM, Berkeley, Aug 91 and Sept 92.

"Pink Pleasure," with Barbara Golden, multimedia performance, Electronic Music Plus Festival, Mills College, Oakland, 91; CSU Hayward, 90.

"Pink Pleasure," with Barbara Golden, videotape, Electroacoustic Days, Concordia Univ., Montreal, 92.

"ROBOSAX," with Gabriel Stern, lecture/demonstration, Songlines, Mills College, Oakland, Feb 92.

"Bongos and Poetry," with K. Atchley and B. Golden, Intersection for the Arts, San Francisco, 91.

### **Courses Taught**

C S 1160 Introduction to Computer Science and Programming Methods

C S 3660 File Management

C S 3860 Computer Music Programming

C S 4848 Computer Animation Programming

C S 4849 Game Programming

C S 4560 Operating Systems

C S 4840 Computer Graphics

C S 6000 Research Methodologies

C S 6560 Operating Systems Design

C S 6580 Distributed Systems

C S 6825 Computer Vision

C S 6840 Principles of Computer Graphics

M M 4850 Fundamentals of Digital Media

### **Synergistic Activities**

Innovations in teaching: I've developed and taught a number of classes in the general area of media systems, including Computer Animation, Computer Game Programming, Computer Music Programming, Computer Vision, and Distributed Systems. I also helped to develop the campus MA program in Multimedia. Currently, I'm running the College of Science's CompCore high-performance computing and visualization lab (<http://www.compcore.csueastbay.edu>).

Varied experience with media systems: I have consulted with a variety of local companies to develop novel media software. This includes work on software for camera-calibrated immersive multi-projector display systems, and 3D audio spatialization. I have also developed vision-based music software for live performances, including collaborations with dancers and remote performers.