

	Scott Matthew Griebel 22A Longfellow Road Cambridge, MA 02138 griebel@fas.harvard.edu (617) 945-2012	
Objective	To obtain an engineering research position	
Education	Harvard University, Cambridge, MA 9/96-Present - Ph.D. Candidate in Engineering Sciences - Expected Completion Date: December 2001 - Thesis Topic: Multi-microphone speech enhancement research involving: - Robust speech source location algorithm using multiple microphones - Multiple microphone background noise reduction - Modeling of reverberations and speech source to allow for echo reduction S. M. in Engineering Sciences, 1998 - Cumulative GPA: 3.73 Northeastern University, Boston, MA 9/94-9/96 M. S. in Electrical Engineering - Thesis Topic: Heart sound signal processing research involving: - Time-frequency analysis of heart sound signals - Automatic detection of low blood volume during general anesthesia - Cumulative GPA: 3.91 Penn State University, University Park, PA 8/90-5/94 B. S. in Computer Engineering with Honors in Electrical Engineering - Thesis Topic: 3D coronary angiogram image processing research involving: - Automatic selection of skeletal axes of coronary arterial branches - Representation of 26-connected voxel axes by variable-length line segments for arterial cross-section production - Part of a larger effort to produce video fly-throughs of user-selected coronary arterial branches for stenosis detection - Tau Beta Pi Engineering Honor Society - Cumulative GPA: 3.88	
Experience	Research Assistant, Harvard University, Cambridge, MA 5/97-Present - Research Area: Multi-Microphone Speech Enhancement Teaching Fellow, Harvard University, Cambridge, MA 2/98-5/01 - Operations Research (Spring 1998, 1999, 2000, 2001) - Speech Generation and Recognition (Fall 2000) - Levenson Award For Teaching Excellence Nominee - Division of Engineering Award Winner for Teaching Excellence Consultant, SparkNotes.com, Cambridge, MA 4/00-Present - Create online study aids for high school and college students - Create graphics for website Consultant, Acoustic Magic, Sudbury, MA 4/00-Present - Develop microphone array algorithms for speech recognition and teleconferencing applications - Develop website Research Assistant, Northeastern University, Boston, MA 9/94-9/96 - Analyzed time-frequency characteristics of heart sounds to detect low blood volume during general anesthesia Research Assistant, Penn State University, University Park, PA 4/93-5/94 - Enhanced system for analyzing 3D coronary angiogram images	

**Related
Courses**

Summer Intern, General Electric, Erie, PA	5/92-8/92
Developed and assessed software for transportation engineers	
Summer Intern, General Electric, Erie, PA	5/91-8/91
Developed software for Drives, Motors, and Generators Department	
- Signals and Systems - Digital Signal Processing - Digital Image Processing - Linear Algebra - Speech Signal Processing - Computer Graphics	- Probability and Statistics - Classical Control Theory - Optimal Control Theory - Information Theory - Decision Theory - Numerical Computing

**Computer
Skills**

HTML, Java, CGI/Perl, C/C++, FORTRAN, Macintosh, Windows, Unix,
Matlab, Mathematica, Microsoft Office, Adobe Photoshop, Adobe Illustrator

Publications

Griebel, S. and Brandstein, M., "Microphone array source localization using realizable delay vectors," IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, NY, October 2001.

Wang, C., Griebel, S., June, P., and Brandstein, M., "A framework for acoustic and visual-based talker tracking and audio enhancement in a practical environment," IEEE Journal of VLSI Signal Processing, August 2001.

Griebel, S. and Brandstein, M., "Microphone array speech enhancement using coarse channel modeling," International Conference of Acoustics, Speech, and Signal Processing, Salt Lake City, Utah, May 2001.

Brandstein, M. and Griebel, S., "Explicit speech modeling for microphone array applications," Microphone Arrays: Techniques and Applications, Springer-Verlag, Heidelberg, 2001.

Wang, C., Griebel, S., and Brandstein, M., "Robust automatic video-conferencing with multiple cameras and microphones," Proceedings of the IEEE International Conference on Multimedia and Exposition, New York, NY, July 2000.

Brandstein, M. and Griebel, S., "Nonlinear, model-based microphone array speech enhancement," Acoustic Signal Processing For Telecommunication, Kluwer Academic Publishers, Boston, MA, 2000.

Griebel, S. and Brandstein, M., "Wavelet transform extrema clustering for multi-channel speech dereverberation," Proceedings of the International Workshop on Acoustic Echo and Noise Control, Pocono Manor, PA, September 1999.

Griebel, S., "Multi-channel wavelet techniques for reverberant speech analysis and enhancement," Harvard Intelligent Multi-Media Environment Laboratory Technical Report, February 1999.

Griebel, S., "Time-frequency analysis of heart sound signals to detect hypovolemia during general anesthesia," M.S. Thesis, Northeastern University, 1996.

Griebel, S., "Improved methods for three-dimensional coronary angiographic analysis," Senior Honors Thesis, Penn State University, 1994.

References

Available upon request