

Summary

- US Citizen
- Doctoral thesis on mathematics of neural networks for image processing
- Current work involves design, building and repair of audio amplifiers

Education

Doctorate in Electrical Engineering University of Massachusetts at Lowell	1994
Bachelors of Science in Electrical Engineering University of Massachusetts at Lowell	1986
Associates in Engineering Science Northern Essex Community College, Haverhill, MA	1983

Awards

Graduate with Honors, University of Massachusetts at Lowell
Outstanding Graduate Student of the Year, University of Massachusetts at Lowell
Graduate cum Laude, Award for Excellence in Mathematics, Northern Essex

Leadership Training

Management and Business Administration - part of the UMass Lowell PhD program
President of the Graduate Student Association, 1991-1993
Co-Founder of the Student Copy Center at UMass Lowell
Coach for Landmark Education's Self Expression and Leadership Program, 2002

Electrical Engineering Employment

Self-Employed Electrical Engineer <ul style="list-style-type: none">• Design and build custom tube guitar amps• Schematic capture and PC board layout (DesignWorks and Osmond PCB)• Repair vintage amps and effects, tube and solid, guitar and bass• Test equipment: Soldering station, DMM, oscilloscope, frequency generator	Present
Recognition Technologies, Holliston MA Research Scientist <ul style="list-style-type: none">• Image processing for microscopic images of GaAs wafers.	1995-1996
UMass Lowell Center for Productivity Enhancement Assistant Computer System Manager. <ul style="list-style-type: none">• Unix System administration: account management, email, security, etc.	1995-1996
Department of Electrical Engineering, UMass Lowell Research and Teaching Assistant <ul style="list-style-type: none">• Computer programming in C, FORTRAN, Basic, Pascal, Java, etc.	1989-1995
Aviv Corp., Woburn, Mass Mechanical Designer and Draftsman. <ul style="list-style-type: none">• Drafted computer hard drive enclosures.	1988-1989
Raytheon Co., Andover, Mass Test Equipment Design Engineer. <ul style="list-style-type: none">• Design test stations for Patriot and Hawk missile systems.• Analog and digital circuit design.	1986 – 1987
UMass Lowell Center for Atmospheric Research Student Technician. <ul style="list-style-type: none">• Assemble and test atmospheric ultrasound equipment.	1985 – 1986
Etter Engineering, Chelmsford, Mass Technician and Assembler. <ul style="list-style-type: none">• Assembled and tested industrial gas heating units.• Building prototypes, assembly and testing	1984-1985

Doctoral Thesis

“Regularized Image Reconstruction using Neural Networks”

My thesis focused on using the Hopfield neural network in image reconstruction problems. A matrix inversion algorithm was developed and used to reconstruct images from limited Fourier data and to deconvolve blurred images.

Electrical Engineering Publications

“Blind Deconvolution of Images Using Neural Networks”, R. Steriti and M.A. Fiddy
Optics Letters, Vol. 19, No 8, April 1994.

“Image Reconstruction and Neural Networks”, M.A. Fiddy, J. Abbiss, and R. Steriti
Recent Advances in Electronics and Electron Physics, Academic Press, 1994.

“Regularized Image Reconstruction using SVD and a Neural Network”,
R.J. Steriti, M.A. Fiddy, and J. Coleman, IEEE Trans. Signal Processing, 41:10, Oct 1993

“Image Reconstruction by Matrix Inversion on Fully Connected Architecture”,
R. Steriti, J. Coleman, and M.A. Fiddy, Inverse Problems 6, June 1990

“Image Reconstruction based on Matrix Inversion on a Fully Connected Architecture”,
R. Steriti, J. Coleman, and M.A. Fiddy, Inverse Problems 6, June 1990

“Regularized Image Reconstruction and Recognition”, R. Steriti, J. Coleman, and M.A. Fiddy,
Optical Society of America Annual Meeting, Boston, MA, Nov. 1990

“Modeling Neural Network Dynamics using Iterative Image Reconstruction Algorithms”,
R. Steriti, M.A. Fiddy., Proc. Int’l Conf. on Neural Networks, Baltimore, MD, June 1992

“Regularized Matrix Inversion on a Neural Network Architecture”,
R. Steriti, J. Coleman, and M.A. Fiddy., Proc. Neural Networks, Seattle, WA, June 1991

“A Neural Network Matrix Inversion used for Regularized Image Reconstruction”,
R. Steriti, J. Coleman, and M.A. Fiddy, Proc. Neural Networks for Vision and Image
Processing, Wang Institute of Boston University, p60, May 1991

“Image Reconstruction and Regularization: SVD and Neural Network Matrix Inversion”,
R. Steriti, J. Coleman, M.A. Fiddy, IEEE Signal Processing Conf., 1991

“A Neural Network based Matrix Inversion Algorithm”, R. Steriti, J. Coleman, and M.A. Fiddy,
Int’l Joint Conference on Neural Networks, San Diego, CA, June 1990

“Recognition of Blurred, Noisy Images using a Matrix Inverse Determined by a Neural
Network”, Neural Networks for Automatic Target Recognition, Wang Institute,
Tyngsboro, MA, May 1995.