Raymond S. Wagner, Ph.D.

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Objective:

Position in signal processing or related industries with exposure to both technical and business areas and leadership opportunities

Education:

Ph.D. (Electrical and Computer Eng.) – May 2007 Rice University, Houston, TX

Includes thesis *Distributed Multi-Scale Data Processing for Sensor Networks*, research, and coursework in digital signal processing, statistical signal processing, pure and applied mathematics, and computer science. Advisor: Prof. Richard G. Baraniuk

M.S. (Electrical and Computer Eng.) – May 2004 Rice University, Houston, TX

B.S.E.E., Summa Cum Laude – May 2001 Rice University, Houston, TX

Experience:

June 2007-present **Connexions Project, Rice University** Houston, TX
Post-doctoral Investigator

Direct a National Science Foundation-funded project developing software tools for Connexions, a non-profit, open source educational publishing startup. Began by identifying critical needs in mathematics authoring and accordingly redefined project roadmap predating my tenure. Consistent with new goals, manage programmers in developing a suite of XML content conversion tools whose delivery is enabling a critical partnership with the IEEE Signal Processing Society. Also conduct Connexions marketing workshops around the world, manage content entry projects, and provide first-line customer contact and support.

Fall 2001-Spring 2007 **Dept. of Electrical and Computer Eng., Rice University** Houston, TX
Graduate Student Researcher, Digital Signal Processing Group

Conducted self-directed research in distributed data processing for wireless sensor networks. Led a multi-disciplinary, multi-national effort to develop novel signal processing techniques for distributed, irregular-grid wavelet transforms as well as networking tools for programming generalized distributed algorithms. Engaged in grant writing, oversaw undergraduate student researchers implementing wavelet algorithms in hardware, and managed the cross-departmental COMPASS group research agenda.

Summer 2003 **Raytheon Missile Systems** Tucson, AZ
Post-graduate Intern, Advanced Programs

Conducted self-directed research into applying image super-resolution algorithms for improved automatic target recognition with forward-looking infrared imaging systems.

Summer 2001 **Cicada Semiconductor Incorporated** Austin, TX
Design Engineering Intern, Digital Signal Processing Group

Spearheaded update of MATLAB digital subscriber loop simulation code from the HDSL2 standard to the SHDSL standard.

Summer 2000 **Hewlett-Packard Corporation** Fort Collins, CO
Intern, Systems VLSI Technology Organization

Conducted research on power consumption of advanced 64-bit adder in developmental PA-RISC processor. Achieved 40% reduction in circuit power draw with an increase in circuit performance.

Honors and Activities:

- National Science Foundation Graduate Research Fellow (2001-2007)
- Texas Instruments Distinguished Fellow, Rice Presidential Fellow (2001-2007)
- Phi Beta Kappa national honor society member (2001)
- Eagle Scout (1993)
- Research collaborator, COMPASS group, Rice University (2007-present)