Thomas L. Martin

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EDUCATION:

8/92-present **CARNEGIE MELLON UNIVERSITY** **GPA: 4.0/4.0**
Carnegie Institute of Technology
Pittsburgh, PA
M.S. in Electrical and Computer Engineering, December, 1994.
Ph.D. in Electrical and Computer Engineering, expected May, 1999.
Advisor: Dr. Daniel Siewiorek
Thesis title: *Balancing Batteries, Performance, and Power: System Issues in CPU Speed-Setting for Mobile Computing*

9/87-6/92 **UNIVERSITY OF CINCINNATI** **GPA: 3.9/4.0**
College of Engineering
Cincinnati, OH
B.S. in Electrical Engineering, with optional minor in VLSI Systems Engineering, June, 1992.

INDUSTRIAL EXPERIENCE:

9/90-9/91 **RANDOM CORPORATION** Engineering Co-op
Engineering Department
Cincinnati, OH

Designed and implemented hardware/software for speech recognition terminal prototype, LCD lightpen prototype, and touchscreen prototype; tested and maintained terminals used in engineering and business sections; performed hardware/software verification of test fixture.

9/89-3/90 **DIGITAL EQUIPMENT CORPORATION** Engineering Co-op
Semiconductor Engineering Group, Advanced Development
Hudson, MA

Designed various parts of the address-handling section of the DEC Alpha prototype, a semi-custom VLSI design. Verified logic using logic modeling tools, designed circuit-level schematics for both production and SPICE simulation purposes, performed electrical design rule checks.

9/88-3/89 Assisted with shrink of an existing VLSI CPU design from 1.5 µm CMOS technology to a 1.0 µm technology. Extracted critical speed paths and simulated using SPICE, gathered data for SPICE model correlation, verified layout met VLSI design rule specifications, wrote C programs to ease SPICE simulation.

CONFERENCE PUBLICATIONS:

Thomas Martin and Daniel Siewiorek. The Impact of Battery Capacity and Memory Bandwidth on CPU Speed-Setting: A Case Study. Submitted to the 1999 International Symposium on Low Power Electronics and Design.

Thomas Martin and Daniel Siewiorek. A Power Metric for Mobile Systems. *Proceedings of the 1996 International Symposium on Lower Power Electronics and Design*, Monterey, CA; August 12-14, 1996; pp. 37-42.

Smailagic, A.; Siewiorek, D.P.; Anderson, D.; Kasabach, C.; Martin, T.; Stivoric, J. Benchmarking an Interdisciplinary Concurrent Design Methodology for Electronic/mechanical Systems. *Proceedings of 32nd Design Automation Conference*; San Francisco, CA; 12-16 June 1995; pp. 514-519.

OTHER PUBLICATIONS:

Verilog project description from Introduction to CAD course appeared in Chapter 9 of *The Verilog Hardware Description Language, Third Edition*, by Donald E. Thomas and Philip R. Moorby. Kluwer Academic Publishers, Boston, 1996.

Thomas Martin. *Evaluation and Reduction of Power Consumption in the Navigator 1 Wearable Computer*, Master's Report, Carnegie Mellon University, Department of Electrical and Computer Engineering, December 1994.

Thomas Martin and Daniel Siewiorek. Wearable Computers at Carnegie Mellon University. *IEEE Potentials*, Fall 1994.

PRESENTATIONS:

"Software Development for the Navigator Series of Wearable Computers," First Annual Portable by Design Conference, Santa Clara, CA, Feb. 14-18, 1994.

TEACHING EXPERIENCE/TRAINING:

Teaching Intern, Spring 1995, for 18-360 Introduction to CAD. Responsibilities included lecturing on maze and channel routing, developing Verilog and simulated annealing projects, and writing test and homework problems.

Attended National Science Foundation Engineering Education Scholars Workshop, Atlanta, GA, July 23-28, 1995.

Attended Preparing for a Faculty Career seminar series, Fall 1995-Spring 1997. Topics included syllabus writing, lecturing, and supervising graduate research.

Wrote Ph.D. qualifying examination advice pages, *http://www.cs.cmu.edu/~tlm/qual.html*.

Pennsylvania Junior Academy of Science, 1992-1995, 1997. Annual program to introduce high school students to electronics by teaching them Boolean logic and SSI prototyping.

Organized and led Eta Kappa Nu tutoring sessions on circuit analysis, Winter/Spring 1992.

SCHOLARSHIPS/HONORS:

Carnegie Mellon University: National Science Foundation Graduate Research Fellowship, 1993-1996. National Science Foundation Engineering Education Scholar, 1995.

University of Cincinnati: National Merit Scholarship, 1987-1992. Albert Voorheis Scholarship (full tuition), 1987-1992. Ohio Board of Regents Scholarship, 1987-1992. Eta Kappa Nu Award, 1992. Eta Kappa Nu Tau chapter president, 1991-1992.

PROFESSIONAL ACTIVITIES:

Reviewer for Design Automation Conference.

Member: IEEE, Eta Kappa Nu, Phi Kappa Phi.

Local Arrangements Co-chair, 1998 International Symposium on Wearable Computers.

REFERENCES:

Dr. Daniel P. Siewiorek, thesis advisor
Buhl Professor of Computer Science and Electrical and Computer Engineering
Carnegie Mellon University
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Assistant Professor, Department of Electrical and Computer Engineering
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