

Michael Leuchtenburg

Michael Leuchtenburg
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Goal

To work at the increasingly fuzzy boundary of hardware and software.

Skills

Electronics

System design, especially in the digital realm. CPLD/FPGA design with VHDL and Verilog. Printed circuit layout and design. Mixed hardware/software problems. Debugging with logic analyzers, spectrum analyzers, oscilloscopes, and other test equipment.

Programming

Microcontroller programming in C and assembly (Atmel AVR, Microchip PIC), including timing-critical applications. Proficient in C, Assembly (PIC, AVR), and Perl. Also have experience with Matlab, C++, Assembly (MIPS), DSP programming and various other environments.

Recent Positions

University of Massachusetts at Amherst.....2004-09 through 2005-07
Computer Systems Lab TA, Departmental Assistant

Assisted in teaching two courses on microcontrollers and programmable logic using the Atmel AVR ATmega32 and Altera MAX 7000. Designed the successor to these courses with a more integrated curriculum, using the same hardware.

Hampshire College, Brown University.....2004-05 through 2004-07
Researcher

Designed and tested an implementation of a power-saving algorithm using the SimpleScalar architecture simulator. This work led to the publication of a paper: Nikil Mehta, Brian Singer, R. Iris Bahar, Michael Leuchtenburg, Richard S. Weiss: Fetch Halting on Critical Load Misses. ICCD 2004: 244-249.

Massachusetts General Hospital.....2003-07 through 2004-01
Systems Administrator

Implemented a secure remote-logging and log-scanning system. Evaluated web-based groupware products.

Metacarta.....2002-06 through 2002-09
Intern

Implemented a natural language parser for time expressions outputting TimeML. Designed a georeference database and built data normalization routines for data import from many sources.

Education

University of Massachusetts at Amherst. Bachelor of Science in Computer Systems Engineering. 2005.