

Jeff D. Walther

8107 Hillrise Dr.
Austin, TX 78759
(512) 345-7759
trag@io.com

Objective

Electrical engineer seeking full-time employment developing or supporting products or technologies in the fields of integrated circuit design and fabrication, telecommunications or embedded processors.

Experience

01/04 – 05/05

The University of Texas at Austin, Course work toward Master's Degree in Electrical Engineering.
Key Courses: Computer-Aided Integrated Circuit Design, Digital System Design Using VHDL, Analog Integrated Circuit Design, Microelectronics Fabrication Techniques

11/01 – 01/04

Stay-at-home parenting of newborn

06/00 – 11/01

Synopsys Professional Services Group, Austin, TX, Designer

- Authored design rule check (DRC) deck in Calibre for IBM's .125 micron SOI process, using IBM CSOI9S0 Design Manual rules. Developed the entire design rule check deck from scratch for a client's microprocessor design which would be fabbed on IBM's process.
- Specification to RTL design of a DDR SDRAM memory controller. Developed specifications including command queue structure, interface to application logic, memory capacity, bank and interleave structure and addressing format. Authored Verilog code for the memory controller including a large state machine to optimize the memory controller bandwidth under many conditions.
- Verilog design of a test bench, using VCS software to verify non-clocked (NC) logic designs. Wrote test bench code in Verilog and then tested non-clocked logic designs in net list format using the VCS tool. This requires special attention to acknowledge loops as there are no clock ticks in a non-clocked logic design.
- Schematic capture design of a CRC encoder/decoder and comparator in non-clocked (NC) logic.
- Developed Perl scripts to support design flow process.

05/92 – 01/00

Texas Commission on Environmental Quality, Austin, TX, Engineering Specialist (formerly: Texas Natural Resource Conservation Commission)

- Worked full time while completing Electrical Engineering course work.
- Authored requirements and recommendations for agency-wide IT equipment purchasing, including tutorials on how to pick the best value in a rapidly changing market of very technical commodities.
- Developed database applications for Oracle in Crystal Reports and Developer 2000.
- Developed applications that streamlined transfer of data from legacy Unisys databases to Oracle and desktop database systems.
- Evaluated, selected, and purchased information management systems, software and equipment, including Hewlett Packard HP-UX PA-RISC systems and advanced document management systems.

1988 – 1991

The University of Texas at Austin School of Law, Doctor of Jurisprudence

1984 - 1987

McDonnell Douglas Astronautics Company, Houston, TX, Assistant Engineer

- Planned and wrote shuttle trajectory planning and in-flight monitoring software using C in a Unix environment.
- Planned and conceptualized architecture of hardware and software for the space shuttle payload data display system.
- Wrote technical flight documentation for space shuttle missions.
- Monitored space shuttle systems from mission control during flight.
- Analyzed payload and shuttle structures for integrity. Plotted trajectories to ensure collision- and plume- avoidance.

Education**Admitted to Masters Program, Electrical Engineering, August 2004**

The University of Texas at Austin

Key Courses: Digital System Design Using VHDL, Analog Integrated Circuit Design, Embedded Processor Interfacing and Programming, Microlithography

Bachelor of Science, Electrical Engineering, May 2000

The University of Texas at Austin, Major GPA: 3.60/4.00

Key Courses: Computer-Aided Integrated Circuit Design, Microelectronics Fabrication Techniques, Real Time Digital Signal Processing Laboratory

Doctor of Jurisprudence, Law, May 1991

The University of Texas at Austin School of Law

Bachelor of Science, Aerospace Engineering, May 1984

The University of Texas at Austin

Skills

Verilog & VHDL logic design and verification
Verification using ModelSim and VCS
Synthesis using Xilinx ISE
FPGA prototyping with Xilinx
DRC, LVS and extraction with Calibre and X-Calibre
Experience in C, C++ & Perl

Training

Synopsys Design Compiler Workshop
Synopsys Physical Compiler Workshop
Synopsys Chip Synthesis Workshop
Synopsys Advanced Chip Synthesis Workshop
Synopsys Flex Route Workshop
Synopsys Chip Architect Workshop
Synopsys Basic Verilog with VCS Workshop

References

Carl Dobbs, Principal Consultant, Fourteen Consulting, (512) 633-7628
Michael Solka, Manager, Synopsys PSG, (512) 372-7535

Licenses

Engineer in Training (Fundamentals of Engineering Exam passed)
Licensed to practice law in the state of Texas