

**JEFF D. WALTHER**  
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### **TECHNICAL SKILLS**

Verilog RTL logic design and verification  
VHDL logic design and FPGA prototyping  
DRC, LVS and extraction with Calibre and X-Calibre  
C, C++, Perl Programming  
Schematic capture logic design

### **EMPLOYMENT HISTORY**

SYNOPSYS PSG (via THE SILICON GROUP), Austin, TX      June 2000 – November 2001  
Designer

- 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 test bench (VCS) 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 CRC encoder/decoder and comparator in NC logic.
- Wrote a 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.
- Developed Perl scripts to support design flow process.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION, Austin, TX 1992 – 2000  
ENGINEERING SPECIALIST

- Managed annual budgets of over \$300,000 fulfilling the information management needs of a division containing more than 80 persons.
- 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 HPUX PA-RISC systems and advanced document management systems.
- Installed, configured, and maintained more than 50 networked PCs.
- Worked with Texas companies to ensure compliance with administrative rules and regulations relating to air emission standards.

LAW SCHOOL

1988 - 1991

MCDONNELL DOUGLAS ASTRONAUTICS COMPANY, HOUSTON, TX 1984 - 1987

- 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.
- Confirmed structural integrity of space shuttle cabin during emergency escape procedure using a computerized finite element model based on NASTRAN.
- 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**

B. S., Electrical Engineering, The University of Texas at Austin, Austin TX 2000  
Major GPA = 3.60/4.00

J. D., Law, The University of Texas at Austin School of Law, Austin, TX 1991

B. S., Aerospace Engineering, The University of Texas at Austin, Austin TX 1984

### **LICENSES**

Licensed to practice law in the State of Texas

Engineer in Training (Fundamentals of Engineering Examination passed)

### **SPECIALIZED TRAINING**

Real Time Digital Signal Processing Laboratory  
Analog Integrated Circuit Design (Graduate Level)  
Microprocessor Application and Interfacing  
Synopsys Design Compiler Workshop  
Synopsys Physical Compiler Workshop  
Synopsys Chip Synthesis Workshop  
Synopsys Advanced Chip Synthesis Workshop  
Synopsys Flex Route Workshop  
Synopsys Chip ArchitectWorkshop  
Synnopsys Basic Verilog with VCS Workshop  
Microelectronics Fabrication Techniques Laboratory

### **CERTIFICATES**

Oracle7 Database Administration  
Tune Oracle7 Applications  
Oracle Developer/2000 Forms II  
Oracle Developer/2000 Forms I  
Oracle Develepor/2000 Reports  
Oracle: SQL and PL/SQL Using Procedure Builder  
Oracle Advanced SQL and SQL Plus

## **TEACHING EXPERIENCE**

AUSTIN INDEPENDENT SCHOOL DISTRICT Substitute Teacher in Math and Science	1991 – 1992
STANLEY H. KAPLAN EDUCATION CENTER LSAT Preparation Course Instruction	1988 – 1991
SYLVAN LEARNING CENTER	1988 – 1989