Requirements for a Senior Digital ASIC Design Engineer

About Scientic, Inc.

Scientic, Inc. is a VA-Certified, Veteran-Owned Small Business headquartered in Huntsville, AL specializing in nuclear and space radiation effects system survivability, analysis, verification and testing. Scientic provides full service science and engineering solutions to complex problems facing national defense and aerospace programs supporting both government and prime contractors. Our demonstrated experience extends from research and development through production and qualification. We study environment induced failures; explore new concepts and theories; execute and interpret environmental models; develop new technology designs and materials; and collaborate with government, industry, and academia to implement solutions for our customers.

Job Description

Experienced, respected, results-oriented individual with successful career in engineering and project leadership positions. Accustomed to handling organizational issues and working with cross-functional, multi-disciplined groups to maintain efficiency, execution, and timely delivery of a final product. Proven track record with documented history of accomplishments in roles of increasing responsibility. Ability to effectively and efficiently communicate complex technical ideas to others. Ability to apply technical expertise to Design Evaluation, Circuit Analysis, and Reverse Engineering.

Education:

BS in Electrical or Computer Engineering

MS in Electrical or Computer Engineering desired

General Skills:

Integrated circuit digital hardware design using hardware description languages (VHDL preferred).

Proficiency with commercial Electronic Design Automation tools for Simulation, Synthesis, Static Timing Analysis (STA), and/or Automatic Test Pattern Generation (ATPG). Prefer a broad background involvement in all of the steps from concept through production.

Familiarity with embedded processor based designs such as ARM or PowerPC. Understanding of memory mapped peripherals, bus architectures such as AMBA, and serial interfaces such as RS-232, SPI, SCI.

Understanding of (experience desired) in Place and Route for standard-cell based designs.

Experience with and understanding of unique Deep-sub-micron technology effects.

Experience supporting production issues – such as field failures.

Familiarity with UNIX/Linux operating systems from a user's standpoint.

Customer communication.

Digital Application Specific Integrated Circuit Design and Verification Skills:

Ability to understand requirements documents and translate into appropriate block level architecture.

Ability to translate requirements into a detailed design specification.

Ability to translate requirements and design specification into a VHDL (preferred) or Verilog Register Transfer Level (RTL) design. Ability to implement that design using design practices that fulfill safety-critical requirements.

Strong understanding of semiconductor fabrication processes and techniques in current commercial technologies.

Experience with full-custom, standard-cell, and sea-of-gates design methodologies.

Experience with Clock Domain Crossing (CDC) and low-power design tools and techniques.

Experience prototyping with FPGA's.

Understanding of and experience in synchronous design methodology that supports serial-scan based testing.

Experience supporting production test – supplying test vectors within tester timing and capacity constraints.

Experience supporting failure analysis of production designs.

Software skills:

Ability to develop test software using assembly or 'C' language for 8/16/32 bit embedded microcontrollers.

Understanding of serial protocols such as UART, SPI, I2C.

Understanding of network architectures such as token-ring, Ethernet TCP/IP, CDMA, etc.

Ability to demonstrate design correctness via digital simulation, and efficiently diagnose and debug design errors.

Knowledge of some of the following languages is preferred:

C, C++, Assembly (esp. PowerPC), Python, Perl, PHP, TCL/TK, Bash/Korn/CSH/TCSH Shell Scripting, VHDL, and/or Verilog. Any of the following may also be helpful: HTML, XML, CGI, SQL, MATLAB, MathCAD, Qt, GTk.

Primary Job Location: Crane, IN

Job Posting: 06/06/2018

Position Type: Full-Time/Regular

Travel Requirements: Yes, up to 10% of the time.

Security Requirements: Candidate must be a U.S. Citizen and possess (and be able to maintain) a Final Secret Clearance or meet the eligibility to obtain (and maintain) a Secret clearance.

Closing Date: 07/15/2018

Scientic is an Equal Opportunity/Affirmative Action Employer, M/F/Disability/Veteran.

Scientic believes in recognizing employees' worth by offering competitive salaries and benefits, including health, dental, and vision insurance, 401(k) contributions, educational reimbursement, and much more.