POSITION: Hardware Engineer III

BACKGROUND: Engineering Design Team, Inc. (EDT) specializes in high-speed interface products that link digital cameras, high-resolution scanners, simulation systems, and telemetry receivers to a variety of computers. Since our founding in 1987, EDT has provided interface solutions to scientists and engineers worldwide in the scientific, industrial, and military communities.

JOB OVERVIEW: The Hardware Engineer at EDT uses the tools available at EDT to design, layout, and test hardware solutions for solving a wide variety of real world problems. In addition to board level hardware design, the HWE will design, document, and develop applications or firmware for programmable logic devices, embedded micro controllers, or host computers running EDT device driver software. Hardware engineers will interact daily with software developers, manufacturing engineers, and technicians. Hardware engineers will also interact regularly with customers supporting their current and future products.

The primary functions of an HWE3 include, but are not limited to:

- Create symbols for datasheets for Schedit.
- Create Decals from datasheets for PADs.
- Create part numbers for new parts.
- Modify existing board level schematics and circuit board layouts using the EDT schematic and layout tools.
- Build and repair open face development/lab systems, install operating systems, and install EDT drivers.
- Use multi-meters, oscilloscopes, and logic analyzers in order to debug hardware in a lab environment; debug hardware designs.
- Use Jira, Confluence, Git, and Crucible as it applies to the development cycle of EDT products.
- Design and layout boards with little to no supervision using EDT design tools.
- Thorough working knowledge of both Xilinx and Altera FPGAs and design tools.
- Actively participate in the schematic, layout, and code review process.
- Write, or modify existing, C/C++ applications enabling the early stages of board bring-up and test.
- Write test procedures.
- Work with CM and PCB Fab to find and fix problems.
- Create file sets required for manufacturing.
- Read datasheets and evaluate trade-offs of application specific devices as required by the hardware specification, cost targets, and manufacturability of the board.
- Apply the principals and techniques of high speed board design.
- Read industry standard specifications and design solutions to successfully implement them.
- Considered the “expert” on certain applications (e.g. PCIe, CameraLink, Ethernet, Flash memory, radio design, etc.) .
- Understands the entire process, from schematic entry to manufacturing test, and constantly seeks ways to make EDT products more cost effective throughout.
- Documents designs in Confluence.

- Will be an FPGA expert, able to properly constrain designs for timing, able to properly analyze designs for SSO issues, able to pinout designs, able to use vendor debug tools.
- Write VHDL code with the intent of re-use.
- Participates in system level architecture decisions.
- Work with multiple vendors across multiple disciplines.
- Constantly focused on learning and applying knowledge to the design of new products.
- Manage resources required for successful completion of a project.
- Works with customers diagnosing and debugging issues, providing solutions, and assisting with product selection.

SUPERVISORY RESPONSIBILITIES: None.

JOB QUALIFICATIONS:

Education: Bachelor of Science from accredited college or university in Electrical Engineering or Computer Engineering

Experience: 5 to 10 years relevant experience

Certificates, Licenses, or Registrations: None.

Specialized knowledge or abilities:

- English required
- Excellent self-direction and multi-tasking skills
- Excellent written and verbal communication skills
- Excellent interpersonal skills
- Excellent problem solving skills

PHYSICAL DEMANDS: Sedentary with computer usage most of the day, some walking, lifting, bending, and twisting. May be required to lift up to 50 pounds.

WORK ENVIRONMENT: Office environment, phone/computer work, some manufacturing noise.

***EDT reserves the right to modify, interpret, or apply this job description in any way it desires. This job description in no way implies that these are the only duties, including essential duties, to be performed by the employee occupying this position. *This job description is not an employment contract, implied or otherwise. The employment relationship remains "at-will."*

IF INTERESTED, PLEASE SEND RESUME AND LETTER OF INTEREST TO:

Sharon Bolesky

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