Sr. FPGA Engineer

JOB DESCRIPTION
As a Sr. FPGA engineer, you will be responsible for programming Xilinx FPGAs on electronic boards for signal processing and control purposes. The ideal candidate should have at least 3 years of experience in the development, simulation, debugging, and testing of the Verilog for FPGA.

FUNCTIONS
- Design and develop, simulate codes and algorithms, verify FPGA functionality, interface with FPGA peripherals including host processors and electronic control boards.
- Specify the FPGA functions from architectural level to instruction/register level
- Write (RTL) Verilog
- Develop and write tests to verify FPGA functions.

DUTIES AND RESPONSIBILITIES
- Use Xilinx Vivado, develop FPGA RTL codes, and perform synthesis and timing analysis through simulation.
- Interface with the peripherals through PCI Express (Gen2/3), SPI, LVDS, I2C.
- Incorporate 3rd party IPs (drivers, C-APIs)
- Cooperate with software engineers for C/C++ access.
- Design and implement efficient methods to test the FPGA functions
- Provide technical reports and documentations for review and sharing

QUALIFICATIONS
- Experience in digital design and embedded systems
- Experience in FPGA design and simulation
- Good knowledge of high-speed communication protocols such as Gigabit Ethernet, PCI express; I2C, SPI, RS232, RS485
- Prior experience in FPGA with optical interfaces is a plus
- Strong problem-solving skills
- Self-motivated and able to work independently as well as cohesively within a team environment.

EDUCATION and TRAINING
- BS/MS/PhD in EE and equivalent relevant experience;

This position is based on our headquarters in Santa Clara, California

ABOUT MULTIBEAM CORPORATION
Multibeam Corporation is a leader in multicolonmn electron-beam wafer fab equipment. The company’s proprietary miniature e-beam column is currently being used to build lithography systems for fabricating integration circuits, initially for low-volume, high-mix production. This multicolonmn e-beam writing platform is versatile and capable. Among other major applications are: embedding unique chip ID in IC to thwart counterfeiting and tampering; embedding chip-specific security data in IC to augment software security and enhance cybersecurity; assisting high-precision, localized etch and deposition in advanced IC fabrication. Based in Santa Clara, California, Multibeam is led by Dr. David K. Lam, the founder and first CEO of Lam Research.