

**Job Descriptions**  
**US Openings**

**QA/QC Medical Device Consultant**

-----

**Openings:** 1 (Los Altos, CA)

**Experience:** 10+ years

**Employment Type:** Consultant

**Job Description:**

Looking for a consultant with experience in QA/QC processes, SOP creation, and process development for a medical device design services company. This is a unique opportunity to help create processes and document SOPs around these processes, for ISO and FDA certification purposes. Candidate must have gone through at least one full design cycle for a medical device and successfully submitted design history file to the FDA. Development of SOPs that are compliant for certification by FDA and EU CE Mark.

**Should have expertise in:**

- IEC62304
- ISO14971
- IEC60601
- ISO13485

**Good to have expertise in:**

- FDA Ultrasound Clearance
- FDA Guidances for Software Validation
- FDA Guidances for Software Submissions

## **Tech Writer**

-----

**Openings:** 1 (Los Altos, CA)

**Experience:** 7+ years

**Employment Type:** Consultant

### **Job Description:**

Looking for strong technical writer to review, update and organize large portfolio of technical documents for FDA medical device Design History File submissions. Previous experience in technical writing for medical device is a must. Ability to manage documentation consistency over the development life cycle, create documentation sets from Google docs, MS Office suite, and Doxygen generated outputs. Need to manage integration and handoff of documentation releases from internal to customer QMS systems.

## Senior GPU Engineer

-----

**Openings:** 1 (Los Altos, CA), 1 (Bangalore, India)

**Experience:** 10+ years (Los Altos), 5+ years (Bangalore)

**Employment Type:** Consultant (Los Altos), Full Time (Bangalore)

### **Job Description:**

Looking for a consultant with expertise in GPU optimization for DSP algorithms. Candidate should be familiar with a wide variety of GPUs including mobile GPU platforms. Background in DSP algorithms is required to successfully migrate C/C++ code into various GPUs.

### **Should have expertise in:**

- DSP algorithms
- Floating point and fixed point implementation of real time data processing
- Cuda/OpenGL/OpenCL experience

### **Nice to have expertise in:**

- Mobile GPU technologies
- Vulkan/Metal APIs

## **Senior V&V Engineer**

-----

**Openings:** 1 (Los Altos, CA)

**Experience:** 5+ years

**Employment Type:** Full Time

### **Job Description:**

Looking for senior V&V Engineer who can take on leadership role in verification and validation of medical device products. Focus shall be on unit level and subsystem level verification of complex hardware, software, and fpga firmware for medical devices with large DSP content, sophisticated synchronization mechanisms as well as control logic for various sensors and interfaces. Previous experience in medical device V&V is a must.

### **Should have expertise in:**

- Medical device Verification and Validation
- Ability to create a test strategy and develop test cases from requirements at unit, subsystem and system level
- Ability to document Verification procedures and execute
- Manage distributed verification teams worldwide
- Ability to develop test cases and infrastructure in python, C/C++
- In depth knowledge of IEC62304 and ISO14971 standards
- White box and black box test experience

### **Good to have expertise in:**

- DSP algorithms verification
- FPGA firmware verification experience
- Software development background

## **V&V Engineer**

-----

**Openings:** 1 (Los Altos, CA), 2 (Vadodara, India), 2 (Bangalore, India)

**Experience:** 3+ years

**Employment Type:** Full Time

### **Job Description:**

Looking for verification and validation engineer in the medical device space. Engineers must have software development experience in order to be successful. Verification requires understanding of the overall system design and functionality of complex signal processing architectures. As an entry level position, this role is demanding and those who succeed demonstrate the ability to grasp system level concepts quickly and utilize them in their verification role. While specific domain knowledge is not required for this position they are nice to have.

### **Should have expertise in:**

- Python and/or C/C++ development

### **Good to have expertise in: (Need have have 2 of the following)**

- Previous medical device V&V experience
- DSP algorithm verification experience
- FPGA firmware verification experience
- C/C++ middleware/firmware development verification experience
- Analog/Digital hardware bringup, debug, and test experience

## Senior RF Analog Engineer

-----

**Openings:** 1 (Bangalore, India)

**Experience:** 10+ years

**Employment Type:** Full Time

### **Job Description:**

Looking for design and development capabilities for high-performance, low-power, low-noise radio frequency (RF) analog circuits interfacing with high end medical sensors and transducers. The ideal candidate will have strong RF/Analog design skills and experience in a variety of areas: RF Switches, Receivers, Transmitters, Frequency Synthesizers, and their associated building blocks such as LNAs, Active or Passive Mixers, Baseband Channel Select and Anti-Alias Filters, Driver Amplifiers, Power Detectors, VCOs, Charge Pumps, Frequency Dividers, etc..

### **Should have expertise in:**

- Transistor level circuit design, Linear amplifiers design
- System level SNR analysis, instrumentation and measurement
- Impedance and gain calculations
- Aware of signal integrity issues (ie. effects of packaging, board parasitics, crosstalk, noise)
- Should have enough experience in handling complex multilayer board layout for sensitive analog and high speed circuits
- Should have experience on building high performance analog circuits from SPICE simulation to working prototypes with the off-the-shelf components to custom designed PCBs
- Should have good experience in grounding and shielding issues management
- Experience in efficient power supply design and filtering
- Prior experience in ultrasound AFE design and medical domain will be plus
- Experienced user of state-of-the-art EDA tools like Cadence Orcad, Allegro, Visio, Altium
- Should have hands on experience on simulation tools such as SPICE, Hyperlynx (would be plus)
- Good knowledge of system level budgeting (ie. jitter, amplitude, noise, power supply estimation)
- Experience in EMI/EMC testing and certification.
- Must have good experience on board level testing and be able to use lab instruments such as spectrum analyzer, network analyzer, function generator, oscilloscope, multimeter, etc.
- Excellent analytical and problem solving skills

## Hardware Board Design Engineer

-----

**Openings:** 1 (Bangalore, India)

**Experience:** 3+

**Job Description:**

Looking for Hardware Board PCB design engineer with good systems knowledge and ability to grasp high level concepts and quickly realize results.

**Skills Required:**

- Working experience on various stages of hardware product development cycles
- Experience on High speed board design
- Experience in working with various protocols such as PCIe, USB3.0, MIPI CSI/ DSI, LVDS, HDMI, DDR3/4,SD/eMMC, NAND, SPI/I2C,
- Working experience with various peripherals such as Image sensors, LCD displays, Flash memory, etc.
- Good knowledge on Timing, Pre and Post Signal Integrity Analysis and simulations tools
- Solid experience of board power supply design, Switching and linear regulators and power supply filtering
- Good Knowledge on board design and implementation guidelines along with EMI/EMC aspects
- Board bring-up, functional testing, DVT measurements and validation
- Experienced user of state-of-the-art EDA tools like Cadence Orcad, Allegro, Visio, Altium.
- Must have good experience on board level testing and be able to use lab instruments such as Function generator, Oscilloscope, Multimeter, etc.
- Should have awareness of boards mechanical fitment
- Excellent analytical and problem solving skills
- Good team player and should be able to communicate effectively with cross functional teams.

## Senior Ultrasound Biomedical Engineer

-----

**Openings:** 1 (Bangalore, India)

**Experience:** 10+ years

**Employment Type:** Full Time

**Education:** PhD

### **Job Description:**

Looking for experienced systems design engineer with ability to design end to end diagnostic and point of care ultrasound solutions. Experience with traditional DAS ultrasound and next generation technologies (Plane Wave, micro Beamforming, etc). Ideal candidate will be familiar with all traditional modalities and various doppler imaging modalities as well as next generation emerging technologies and algorithms.

### **Should have expertise in:**

- Understanding of the current and future ultrasound technology trend, from sensor technologies to core fast time algorithm to post processing.
- Design and verify key ultrasound algorithms in MATLAB or Python
- Understanding of real time ultrasound algorithm implementation on FPGA and GPU
- Participate in the development of ultrasound machine from initial concept to final image tuning in these key area:
  - Initial concept phase: selecting the appropriate algorithm chain
  - Development phase: work with the DSP engineers on algorithm design and verification
  - System bring up phase: work with the hardware and software engineers on debugging system issue in the data path
  - Image tuning phase: work with engineers and sonographer on algorithm and image tuning to obtain the best possible clinical images

### **Good to have expertise in:**

- A specific key domain knowledge in ultrasound either in a imaging/therapeutic modality, or particular image forming algorithm, or sensory material science.
- Publish ultrasound related paper in IEEE/SPIE/RSNA or other relevant ultrasound journals or conference proceedings.



## Senior DSP Software Engineer

-----

**Openings:** 1 (Bangalore, India)

**Experience:** 5+ years

**Employment Type:** Full Time

### **Job Description:**

Looking for software DSP engineer with experience in medical imaging space. Any experience in beamforming, image processing, and doppler processing are relevant. Candidates shall use Python with SciPy and Numpy for floating point models and C/C++ for fixed point implementations. Candidates should be able to understand time, frequency, and spatial FIR/IIR filters; signal processing in time, frequency, and complex domain.

### **Should have expertise in:**

- Digital signal processing fundamentals including, but not limited to, digital filter design, stochastic data analysis, adaptive signal processing, frequency domain data analysis, 2D image processing.
- Digital signal processing tools MATLAB/Octave, Maple, and NUMPY/SCIPY
- Knowledge of real time implementation DSP algorithm in FPGA, GPU, DSP processors, and other SIMD vector processors
- Senior industrial experiences in field of medical imaging, particular ultrasound/CT/MRI imaging

### **Good to have expertise in:**

- Complete ultrasound processing chain from raw ADC data to clinical images.

## **DSP Software Engineer**

-----

**Openings:** 2 (Bangalore, India)

**Experience:** 3+ years

**Employment Type:** Full Time

### **Job Description:**

Looking for software DSP engineer with implementation experience in Python and C/C++.

Candidate should be able to understand the trade offs associated in converting algorithms from floating point to fixed point. Relevant experience includes implementation of various FIR and IIR filters and good grasp of frequency domain and temporal domain processing.

### **Should have expertise in:**

- Digital signal processing fundamentals including, but not limited to, digital filter design, stochastic data analysis, adaptive signal processing, frequency domain data analysis, 2D image processing.
- Digital signal processing tools MATLAB/Octave, Maple, or NUMPY/SCIPY
- Some knowledge of real time implementation DSP algorithm in FPGA, GPU, DSP processors, or other SIMD vector processors
- Industrial experiences in field of medical imaging, video processing, high speed digital communication, or wireless network.

### **Good to have expertise in:**

- Medical device specific DSP, particular ultrasound/CT/MRI imaging.

## Senior FPGA Engineer

-----

**Openings:** 1 (Bangalore, India)

**Experience:** 5+

### **Job Description:**

Looking for FPGA design engineer that can implement control logic state machines and DSP algorithms in FPGA fabric for high throughput medical devices. Requires excellent troubleshooting and debug skills for both simulation and in circuit.

### **Should have expertise in:**

- Excellent knowledge of Digital Design.
- Excellent knowledge of clock-domain crossing.
- RTL Design in Verilog and System-Verilog.
- Creation of micro-architecture from High Level Specifications.
- Functional simulation with ModelSIM or similar tools
- FPGA Design and Synthesis.
- FPGA Map and Route flow, pin assignments, attribute assignments, resource fixing and design partitioning.
- Targeting designs for Intel(Altera) or Xilinx FPGAs.
- Xilinx Vivado or Intel Quartus Prime.
- IP creation and parametrization using Vivado or Quartus.
- Debug using ChipScope/SignalTap and Oscilloscopes/Protocol Analyzers.
- Knowledge of static timing analysis and timing closure using SDC.
- Working with cross-functional, global team of Hardware designers(PCB), Software Engineers(Firmware and App), Verification and Validation Engineers.
- Leading teams to successful completion of projects within deadlines.
- Excellent problem solving skills.

### **Good to have expertise in:**

- Knowledge of TCL scripting and Python will be an added advantage
- Transceivers and PHY
- Power estimation and resource utilization estimation.
- Sot-processor cores like Microblaze or Nios-II
- Knowledge of Digital Signal Processing concepts will be an advantage.
- Knowledge of Matlab or Python for algorithm design will be an advantage.
- Knowledge of embedded systems/C/C++ will be an added advantage.

## **FPGA Engineer**

-----

**Openings:** 1 (Bangalore, India)

**Experience:** 3+

### **Job Description:**

Looking for FPGA design engineer that can implement control logic state machines and DSP algorithms in FPGA fabric for high throughput medical devices. Requires excellent troubleshooting and debug skills for both simulation and in circuit.

### **Should have expertise in:**

- Continual integration of unit modules into FPGA top level
- Extensive experience using SignalTap to debug logic and/or timing issues where software functional tests drive the FPGA data path logic
- Constructing bypass, data taps, and data pattern generators for isolation and unit/subsystem
- Timing closure, constraints file management, basic glue logic between DSP blocks
- Ability to do power estimation (Both pre implementation and post implementation)
- Working with board designer to give optimal pin out mappings
- Working with software team members to create, execute and debug unit level and system level verification tests
- HDL simulation tool: ModelSim or similar
- Verilog HDL/VHDL
- Xilinx/Altera FPGAs, Quartus II/Vivado/ISE and SignalTap/Chipscope
- Taking ownership of project and related tasks

### **Good to have expertise in:**

- SoC and QSYS
- Protocols like AMBA, AXI, Avalon, USB, PCIe
- Memory interfaces like DDR2/DDR3/DDR4
- Control buses like I2C and SPI/QSPI

## **Senior Embedded Software Engineer**

-----

**Openings:** 2 (Vadodara, India)

**Experience:** 3+

### **Job Description:**

Looking for senior embedded software engineer with good knowledge in embedded linux BSP and driver development. Candidate should have clear understanding of embedded linux device tree configuration and custom driver development experience for high speed data throughput devices such as USB and PCIe. Further, custom driver development for integration with FPGA based custom IPs, and various off the shelf peripheral IPs is required.

## **Software Engineer**

-----

**Openings:** 2 (Vadodara, India)

**Experience:** 3+

### **Job Description:**

Looking for C/C++ software development engineer with solid object oriented programming proficiency, design patterns knowledge and ability to apply and architect appropriate solutions around this knowledge. Proficient in latest C++ standards and STL.

### **Should have expertise in:**

- Strong in C / C++
- Experience on Linux environment
- Experience on QT GUI Library
- Good in shell scripting
- IPC / Multithreading
- Middleware development
- Experience on C++ Standard Template Library (STL)

### **Good to have expertise in:**

- Knowledge of Python
- Hands on knowledge of git
- Knowledge of C++11 / C++14