Jason Metzner

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Experience Highlights

GE Healthcare Life Sciences – *Issaquah, WA ..... March 13' – Present*

Lead Electrical Engineer

- Design electrical subsystems for high resolution automated microscopy imaging including system level architecture, PCBA, embedded systems (uP, FPGA, CPLD), and motion control design.
- Touchscreen/LCD design, various sensor techniques, stepper and brushless DC motors, reliability analysis and life testing, incubation systems, high power/speed illumination.
- Gas/humidity/temp sensing, mass flow controllers, solenoid actuation, galvanometer control.
- Engaging in all phases of new product introduction, including concept, architecture, documentation, design, prototype, test, supplier interfaces, manufacturing and service support.
- Lead electrical engineering activities with overall responsibility for the design and development of all electrical subsystems. Establish priorities, allocate resources, and drive technical projects.

Allergan Medical – *Goleta, CA ..... July 10' – March 13'*

Sr. Product Development Engineer

- Experience with leading several projects/tasks for Class 3 medical devices, concept development, design requirements, coordinating staff, identifying scope, budget, and timelines.
- Managed and designed Electrical/Software for several test fixtures including various sensing, fatigue tests, Brushed/BLDC motors, manufacturing, HMI, and data acquisition/manipulation.
- Inductive power design, RF communication/transmission, and a variety of applications using accelerometers, pressure, force, temperature, flow sensors, and means for harvesting energy.
- Schematics/PCB design, simulation, layout, assembly, test, and debug, embedded microprocessor based controller design. Analog/Digital mixed signal circuit design.

Evolving Resources, Inc – *Camarillo, CA ..... March 09' – July 10'*

Engineer

- Telemetry/GPS, signal analysis, timing, bandwidth, and processing. Test and troubleshooting NAVY RF communication equipment, designing portable test sets that meet MIL Standards.

Equipment and Software

- Test equipment: Oscilloscope, Waveform Generator, Spectrum Analyzer, Network Analyzer, Power Meter, Pulse Counter, Programmable Power Supply, Data Acquisition Units, Current Probe, RF Probe, Motor Torque/Speed Test Systems, Allen Bradley, Various PLCs.
- Software: LabVIEW, Altium, OrCAD, Solidworks, Autodesk Inventor, IAR, Atmel Studio, Microsoft Word, Project, Excel, Visio and Visual Studio, Quartus II, Visual Studio++, Xilinx, Eclipse, Keil, and Codewarrior. Perforce, Subversion, Microsoft Access Database.
- Programming Languages/Protocols: VHDL, C, C++, VBA, HTML, SPI, I^2C, UART, USB 2.0.

  MCU/MPU's: TI MSP430, Atmel AVR and ARM (XMega, ATTiny, SAM), Freescale Coldfire, Analog Devices Blackfin, NXP LPC ARMs.

  FPGA/CPLD: Xilinx Spartan and Altera Cyclone/Max10 chip families.

Education and Training

Cal Poly, San Luis Obispo, CA (2004 - 2009)

BS in Electrical Engineering (Focus in RF)

Additional coursework in ME and Physics

- OrCAD PCB Editor and Capture Training
- Labview Core 1/Core 2 Training
- Altium Intro and Advanced Schematic/PCB Training
- Synthworks Comprehensive VHDL Training
- GE Certified Reliability Practitioner
- GE Project Management - Crotonville
- GE Foundations of Leadership – Crotonville
- GE Building Essential Leadership Skills – Crotonville

PATENTS

2015149031,20150142044,20150093362,20150094753,20140350517,20140276384,20130190892,20130190557,20120095497,20120095494