Minal Patel

Total Quality Engineer/ Electronics /Electrical Engineer

Bensalem, PA - Email me on Indeed: indeed.com/r/Minal-Patel/14ce98e633e7eb31

seeking Total Quality Engineer, Electronics and Electrical Hardware/Software Engineer position

WORK EXPERIENCE

Total Quality Electronics/Electrical Engineer

FARO - Kennett Square, PA - September 2013 to Present

Responsibilities

• Workings as a Project lead on Vantage I &II (Tracker Project).
• Finding root cause, troubleshooting, debugging on electronics PCBA schematics and designing.
• Develop and implement test plans, circuits and tools for prototypes. Evaluate and document test results. Develop procedures for production of design.
• Collaboratively work with suppliers, engineering, purchasing and production in order to produce cost effective and reliable products.
• Directly working with Vendor for all engineering PCBs Project Testing strategy, Quality & review budget report/schedules.
• Managing all incoming Electronics and Electrical boards' inspection.
• Managing set up Test Fixtures, test protocol, test procedures for Cable and Device Kit and using Cirris test software program.
• Monitor assigned Quality Problem Reports to ensure that closed looped corrective and preventive actions take place for systemic process and product quality issues.
• Developing complete and thorough test plans for all electrical systems and testing of subsystems.
• Lead on Vendor Project for Total Quality team and create test procedure and test fixture and support production team.
• Working as a bridge between Production and Research and Development (R & D) engineering team.
• Using NI DAQ tools and programming in Labview for automated testing for PCBs.
• Working on ESD project for production plan and Electronics Quality Control lab (EQC).
• Create top level diagnostic protocol and SAP system and working with 3D imaging and measurement laser tracker.

R & D Reliability Engineer

Siemens - Delaware - March 2013 to September 2013

Responsibilities

• Working in a lab environment with equipment including o-scopes, spectrum analyzers, DAQ equipment, etc.
• Using NI DAQ tools and programming in Labview.
• Working on with optical and fiber-optic instrumentation, photodiodes, motors, relays, op-amp design involving optical sensors.
• Working on Research and development Medical Device instrumentation.
• Determining instrument performance specifications with test equipment DMM.
• Documenting on test protocols and test fixturing procedures.

Senior Electrical Engineer,R&D Engineer

Datacolor - Lawrenceville, NJ - August 2012 to February 2013

· Developed schematics, BOM, PCB layouts for scientific color measurement instruments used Altium Designer.
· Troubleshoot analog and digital circuits.
· Developed supporting firmware using the AVR tools and modified code.
· Worked on motors, relays, op-amp design involving optical sensors.
· Worked as a Research and development Engineer.
· Determining instrument performance specifications with test equipment DMM and oscilloscope, signal analyzer.
· Documented on test protocols and procedures.
· Worked on data collection and analysis for R &D projects.
· Evaluated client solutions to meet project application needed.
· Worked on C, C++ with PIC and Atmel micro controller.
· Manage multiple projects simultaneously.
· Battery circuit designing and worked with Matlab Programming software.

Software Test Engineer

ADECCO ENGINEERING - Blue Bell, PA - September 2010 to June 2012

• Evolving technologies shape the testing and certification needs of top mobile software, applications and content developing.
• Application and software works seamlessly and reliably with Netbook, 64bit Laptop and Tablet device on any network for QA Testing.
• Implementing test plans, perform evaluation testing, and analyze results
• Documentation on test reports and instruction manually.

Product Development Engineer

WINEGARD CO - Burlington, IA - August 2008 to March 2010

• Electronics Hardware and Software Designing, Maintained and repaired electrical equipment, installed and tested wiring systems.
• Worked on Temperature control project for Dish Network Antenna of Outdoor Unit.
• Worked on Motor circuit board to measure motor velocity and voltage velocity. Also, worked on DCMB motor calibration and verification
• I have done circuit board design Power Supply project for indoor unit and good knowledge in Power Supply circuit and Analog circuit design.
• Designed circuit digital Sierra LCD Display for WinCE application using digital design LCD connecter, power supply, and backlight driving section, white led driving connector.
• Analog and digital circuit troubleshooting, operation and maintenance various electronic and electrical equipment such as DC power supplies, RF amplifiers, multimeter, oscilloscope and modems.
• I worked on making modifications to the Free scale i. MX21 ADS board Sierra BSP to support the Windows Embedded CE 5.0 Platform used ARMV4I CPU on WinCE application.
• Worked on Windows CE application development for free scale i. MX21 board interfacing with camera circuit, keypad, free scale LCD, TV tuner, protoboard for TV card, power supply circuit.
• Worked on Dish Network project and Embedded Systems and worked with Winegard signal tracker board.
• Worked on Two-way satellite system, IDU (Indoor Unit) and ODU (Outdoor Unit) for T.V. Satellite system.
• Worked on Pic18F452 Micro controller project for LED lighting, LCD and Keypad interfacing using Programming language C and C++.

Electronics Engineer

METROGROUP CORP - Mount Pleasant, IA - December 2007 to July 2008

• I worked on Data Collection project using VB.Net, Omron PLC and Microsoft Access and Excel.

• Also, I have done BARCODE MATCH Project on Mitsubishi PLC; these projects read the barcode and match the barcode.
• New equipment installation, trouble-shooting and debugging.
• I have done Traffic control signal project on Omron PLC.

Embedded System Engineer

Andheri East - Mumbai, Maharashtra - July 2005 to July 2007

• Research & Development on Micro controller designing.
• Designed Paint machine project like vending machine style using embedded control system (software and hardware both)
• My major role for the project was designing the hardware as well as the embedded software development for the system.
• C and assembly programming for embedded systems (8051, ARM, PIC).
• Embedded microcontroller/microprocessor applications in mixed analog and digital.
• Designed embedded systems with Microchip PIC micro-controllers PIC 18F452.
• Designed and developed automated process machine.
• Worked on embedded control systems includes components from sensors to power supplies, LED / LCD's, Touch-screen.
• MPLAB IDE Integrated Development Environment Microchip PIC microprocessor,
• Worked on PCB, designed and tested electronic circuit.
PROJECTS & PRESENTATIONS:
MICROCONTROLLER AT89C52 BASED POWER SUPPLY
Systronics Inc. Ahmedabad, INDIA
• I have done Project on Embedded System "Micro Controller Based Power Supply".
• Platform Microcontroller Assembly language.
• AT89C52 Microcontroller Chip on 0-30Vmax, 2mA Max output Power Supply Working with 4 x 4 matrix keypad, Dot matrix LCD Display, PC link on Assembly Language.
• Worked on the project right from the conceptual level to documentations.

EDUCATION

Bachelor of Engineering in Electronics and Communication

Gujarat University
June 2005

SKILLS

Embedded Engineer,Analog and Digital Design,Hardware Test Engineer,Software Engineer

ADDITIONAL INFORMATION

Applications: MATLab, VNC, Windows NetMeeting, Microsoft Word, Microsoft Excel, Microsoft Access, Microsoft PowerPoint

Major Subject:
• Television, VLSI, Microwave
• Fiber Optics, Mobile Communication
• Data Communication Networking, Antennas
• Power Electronics, Optical communication, Digital Signal Processing (DSP)

• Micro-Controller, Micro Processor
• Radar Technology

SUMMARY OF EXPERIENCE:

• My engineering experience is mostly in the area of electronics hardware design, including analog, digital, microcontroller, high-power, low-power, high volume, aerospace and consumer electronics.
• Excellent in the use of basic hand tools, soldering tools and other electronic assembly tools.
• Knowledge of motor design, Schematic generation and PCB layout tools
• Knowledge of the Firmware in assembly and C/ C++ programming languages.
• Familiar with the Construction, analysis, measurement, and troubleshooting (to the Component level) of analog and digital electronic circuits.
• Read and interpreted Programmable Logic Control ladder and basic wire schematic diagrams.
• Expert in analog design Power supply project and Cell Phone chargers.
• Experience of various I/O interfaces Communication Protocols e.g. RS232, RS485, RS422, Ethernet, USB and protocols like serial, Parallel, I2C, GSM/GPRS and GPS. Blue tooth etc.
• Hardware/firmware development and debugging and Hands on experience of different embedded IDEs like Code Warrior, Keil, and MPLAB.
• Used the following equipment: DMM, Oscilloscope, clamp-on AMP meter, Signal Generators, calibration Test equipment, RF generators, and soldering iron.
• I Have ability to multi-task and a desire to work in a "hands-on" environment and Effectiveness in team product development as well as performing assignments individually.