Mohsen Shirazi

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Summary

Results-oriented Electrical Engineer with over 10 years of experience in electrical design and troubleshooting. Possesses a proven track record in designing, developing, testing, and supervising the manufacturing and installation of electrical systems. Skilled in analyzing blueprints, conducting detailed calculations, and applying electrical theory to ensure the safety, reliability, Strong leadership abilities with expertise in providing support, constructive feedback, and mentoring to teams. long term experienced in analysis Analog and Digital circuits and utilize analog ICs and Digital ICs in circuit design, firmware development, wired and wireless communication protocols (Lan, Wan, RFID, Blutooth, Wifi, VHF, UHF). Strong leadership, communication, and problem-solving skills. Seeking a challenging position where I can utilize my expertise to contribute to the success of an organization

Experience

• Intel San Diego

Senior Electrical Engineer 09/2020 – 02/2024

* Configured, managed, and inspected a wide range of equipment and instrumentation, ensuring their optimal performance and accuracy.Validated and tested equipment according to established protocols, ensuring compliance with industry standards and specifications. Investigated and diagnosed the root causes of equipment anomalies, utilizing troubleshooting techniques and analysis tools. Developed and maintained test automation scripts using C#, C++ and Python, reducing manual testing time by 40 present. Created custom tools for validation testing, enabling automated and comprehensive testing from specifications.
* Led silicon validation efforts for multicore processors, coordinating across multiple teams to ensure seamless integration of software and hardware components.Supported all stages of development and prototype production, ensuring smooth operations and timely delivery.
* Utilized National Instrument measurement tools and software, including Labview, Python, WinSCP, putty, and RHEL, to carry out measurement tasks and data analysis.
* Led the PCB layout process, driving projects to the successful release of PCBA fabrication packages using Allegro, Cadence, Multisim.

• Benchmark Electronics Moorpark, CA

Sustain Test Engineer/Circuit Analyzer and Troubleshooter 09/2019 – 09/2020

* Managed engineering documentation in SAP, BOMs, and processing change orders.
* Programming, Configuring, Testing, Troubleshooting (SMT line, Flying Probe, ATU, Chamber, ICT).
* Skilled in functional safety practices and their implementation to ensure reliable systems.
* Hands-on lab experience, including soldering and operating various lab equipment.
* Expertise in board and system-level testing and characterization, ensuring top-notch product functionality.
* Strong problem-solving skills, both technically and organizationally, enabling effective issue resolution.
* Experience in managing both prototype and high-volume contract manufacturing, ensuring quality and efficiency.

• Electromotion Fresno, CA

Lead Engineer 06/2016 – 07/2019

* Directed and mentored electrical engineers and designers, fostering their growth and development to design for commercial buildings, Solar, Lab rooms, remote patient monitoring, IT rooms, Network wiring, Remote SCADA, Agricultural sensor controlling and monitoring, PLC, water treatment stand wiring.
* Guided and supervised the electrical team, emphasizing mentorship.
* Leveraged Zoom/Microsoft Teams for effective communication and collaborated with stakeholders, utilizing Tableau for data analysis and generating insightful project reports crucial for informed decision-making and project success. Led and developed a team of electrical engineers and designers, nurturing their professional growth to innovate and design diverse commercial infrastructures encompassing.

• Batis Part Co Tehran, IR

Hardware Engineer 2010 – 2015

* Analyze and repair of RF circuit boards in devices such as repeaters, transmitters, receivers, UHF/VHF BTS, Bluetooth, Wi-Fi, RF power amplifiers, Mobile, portable radios, and Trunked network diagnostics.
* Experienced hardware/board design engineer with a strong background in high-density interconnect (HDI) and multi-layer moderate to complex SoCs. Proficient in architecting boards from specifications, PDN design
* Collaborated with cross-functional teams to achieve a final solution for control board designing.
* Maintained accurate records, documents, and reports related to design, test, diagnose.
* Proficient in using circuit design and simulation tools, ensuring the accuracy and reliability of designs.
* Skilled in schematic design and PCB layout tool Altium, facilitating efficient and precise PCB designs.

Relevant Coursework: Computer Architecture, Operating Systems, Embedded Systems, Software Engineering Skills

Programming Languages: C, Python, Test Automation: Test script development, Custom tool creation.

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Com-Ertebatat Co Tehran, IR

Design and Repair Department Manager 2005 – 2009

* Configured telecommunication systems, specifically base stations, according to project requirements.
* Installed and linked base stations, ensuring proper connectivity and system integration.
* Conducted comprehensive field measurements to maintain accurate records of system performance.
* Identified and resolved system problems through effective faultfinding techniques.
* Managed local network repairs, including repairing damaged radiophones, RF, microwave, and power amplifiers.
* Assisted in testing and verifying system functionality during commissioning processes.
* Maintained documentation of measurements, fault findings, and problem resolutions for reference and future analysis. Demonstrated track record of successful product delivery, meeting and exceeding project goals.

Diagnose and repair faulty boards and bring to product line - Inspecting of electronic control boards for POS machines based on IPC protocols. - Calibrating touch screen monitors and displays. - Building test fixtures to test PCB boards for quick repairs. - Using automatic test units, providing report for damaged boards. - In-Circuit tests, In Circuit Test for manufactured boards. - Fault finding, system troubleshooting. - Repairing, and designing RF power amplifiers, and high speed control modules - Hi Pot testing, chamber testing, and function testing.

Education

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Azad University

Bachelor of Science: Electrical/Electronic Engineering

Tehran, IR

Professional Skills

* I have experience in : embedded systems design and firmware development for multi-controller architectures, including ARM, PLC, and AVR microcontrollers.
* Analog design: troubleshooting for electromechanical devices, Design tools for schematic capture, PCBA, Wired and wireless connectivity and communication (LAN, WAN, Lin,RS232 RS485, I2C, I3C, JTAG, SPI, Wi-Fi, Can, RFID)
* Wireless Communications: Practical experience in point-to-point and point-to-multipoint wireless communication
* Electrical Expertise: Skilled in electrical work, including wiring, electrician tasks, and knowledge of RG58, RG45, coaxial cables, power (AC and DC), and PABX systems PCB Design: Broad knowledge of FPGA, Gate Array controllers, Microcontroller, and practical experience in electronic board and PCB design
* Soft Skills:Problem-Solving, Project management, Independent, Teamwork, Hardware Troubleshooting, Work Flexible Hours, Hard working, Able to travel
* Proficient with electronic test equipment network analyzer, digital sampling Oscilloscopes, Signal generators, spectrum analyzers, frequency meter, A-DMM, Power meter, Mager, NI measurement, Radio Tested
* Repair of analog and digital RF electronic circuits boards and analysis of electronic circuits in Radio Wireless
* Expert in analog conventional and trunk radio systems (Motorola, Tait, Canon)
* Radio solution provider in analog and digital systems. (Conventional and trunked radio)
* Familiarity with automotive Sensors/controls in EV/AV, contributing to cutting-edge technological advancements.
* Broad knowledge of FPGA, Gate Array controllers, micro controllers