Arian Naghibi

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Profile

Highly accountable and result oriented Electrical Engineer with in-depth 5+ years of experience in researching, defining, designing, evaluating, and implementing embedded solutions with the knowledge of signal/power integrity, analog/digital/mixed/RF, and familiar with EMI/EMC/Safety compliance processes and requirements. Excellent verbal and written communication skills with the ability to relate to all levels within an organization. Adaptable, quick learner, driven, and highly self-motivated with proven ability to work both independently and as a group member in a fast-paced and diverse technical environment. Currently seeking challenging technical roles to apply skills and experience.

Employment Experience

ELECTRICAL DESIGN ENGINEER | CARLISLE IT | FEB 2021 – PRESENT

- Involved in designing, testing, and troubleshooting new high voltage differential probes consisting of attenuation circuit, 1x/10x amplification circuit, offset circuit, overvoltage circuit, and microcontroller to interact with auto-probe and to control relays and LED board.
- Created test setups to perform Frequency response, Step response, and DC Accuracy gain.
- Applied microwave/transmission line theories to high frequency cable test and measurement.

ADVANCED TECHNOLOGIES ELECTRICAL ENGINEER | PACCAR | MAY 2019 – MAR 2020

- Managed a group of engineers to design, build, and integrate a Datalogger system to collect CAN information from truck and upload on the server for further analysis. The project involved reworking schematics, gaining knowledge of batteries, and changing configuration settings.
- Performed various CAN troubleshooting procedures such as verifying network termination resistance, checking CAN voltages, CAN ports, and device configuration settings.
- Participated in system integration and validation of digital and analog low voltage and high voltage electrical systems such as inverters/converters, transmission, HVPD, BMS, pumps and fans for hydrogen fuel cell powered heavy-duty trucks.

ELECTRONIC SYSTEMS ARCHITECTURAL ENGINEER | PACCAR | SEPT 2017 – MAY 2019

- Integrated subsystems into vehicle electrical/electronic network architecture using CAN and LIN communication protocols such as SAE J1939.
- Participated in Failure Mode Effects and Analysis (FMEA) to identify and mitigate critical failures.

ELECTRICAL DESIGN ENGINEER | ROBISON ENGINEERING | NOV 2016 – AUG 2017

- Designed Residential/Commercial Power, Lighting, and One-line/Riser Diagram by following National Electric Code (NEC)
- Performed electrical engineering calculations such as HVAC equipment safety/grounding/load analysis, wire design, voltage drop, etc.

RESEARCH ASSISTANT | HERO LABORATORY | JAN 2016 – JUN 2016

- Designed, prototyped, and tested a practical dry non-contact ECG preamplifier for humans consists of Triple-op-amp instrumentation amplifier having adjustable gain of 10k-1M and common-mode rejection ratio of 62 dB, four-pole unity gain sallen-key active filters with cutoff frequency of 15 Hz, a sallen-key band reject active filter to get rid of 60 Hz noise from power lines, and right driven leg to reduce common-mode interference from body.
- Gained experience generating schematic, BOM and two-layer PCB layout for the ECG preamplifier.

ELECTRICAL ENGINEER | LEVITON NETWORK SOLUTIONS | MAY 2015 – DEC 2015

- Designed a Power Over Ethernet (POE) Load Circuit in which 50V was stepped down to 12V via DC-DC converter and a linear regulator was used to adjust the gate voltage of the MOSFET (1.5-7.5V), thus changing the output current of the circuit across the load (up to 2A).
- Operated various fluke devices to measure electromagnetic characteristics of the Ethernet cables such as near-end crosstalk (NEXT), far-end crosstalk (FEXT), Insertion Loss and Return Loss.

ELECTRONICS TEST ENGINEER | PHILIPS HEALTHCARE | NOV 2014 – APR 2015

- Performed functional tests on Ultrasound Systems per client's Functional Acceptance Test Procedures
- Gained board bring-up experience, whereby a motherboard was successively tested, validated, and iteratively debugged to detect faults.

Education

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING | JUN 2016 | UNIVERSITY OF WASHINGTON, BOTHELL, WASHINGTON

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING | JUN 2014 | UNIVERSITY OF WASHINGTON, BOTHELL, WASHINGTON

Certifications

ENGINEER-IN-TRAINING (EIT) – 2017

Competencies & Skills

SCHEMATICS & PCB LAYOUT: Altium Designer, AutoCAD, EAGLE, ExpressPCB, Mentor Graphics, PADS
DATA, SLIDES, & CHARTS: Excel, MYSQL, PowerPoint, RFFLOW, Rhapsody, SAP, Windchill, Word
PROGRAMMING, MARKUP: HTML, CSS, Git, Java, MPLAB, PowerShell, Python (Numpy, Pandas, Matplotlib, SciPy, Django), MATLAB, Mathematica, Verilog, Visual Basic, XML
SIMULATION: LabScribe, LabView, Multisim, Power Education Toolbox (PET), PowerWorld Simulator, PSpice, Quartus
TESTING & MEASUREMENT: Altera DE1 board, Audio Precision, Canalyzer, Capacitance Meter, DAVIE, Electrical Safety Analyzer (ESA), Function Generator, DTX Analyzer, Hydra Logger, Thermometer, Thermal Imager, LCR Meter, Logic Analyzer, Multimeter, Vector Network Analyzers (VNA), Oscilloscope, Power Supply, Spectrum Analyzer, Thermocouples, Dime-Domain Reflectometer (TDR), and Voltmeter.
BUS COMMUNICATION KNOWLEDGE: CAN, DDR, HDMI, I2C, LIN, PCI-e, SAS/SATA, SPI, UART, and USB
LANGUAGES: Farsi, English