Olu Adeleke Lead Electrical Engineer

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PROFILE SUMMARY

- **Lead Electrical Engineer** with **12 years** in **medical and industrial electronics**, leading **6 engineers** on a bedside **patient monitor** platform at GE HealthCare after 6 years on I/O modules at Rockwell Automation.
- Works in **OrCAD** and **Allegro**, simulates in **LTspice** and **MATLAB**, automates validation in **LabVIEW**, and tracks requirements and defects in **Jira** and Windchill.
- Deep in **low-noise biopotential front ends**, **2 MOPP** isolation, medical power supplies and **IEC 60601** testing, plus the **ISO 14971** risk files that go with them.
- Partners with **systems**, **software**, **regulatory** and **quality** teams under design controls, and reports hardware status at the monthly program review.
- Hired **4** of his 6 engineers, chairs the site's **hardware design review board**, and wrote the group's **IEC 60601 design checklist**.

TECHNICAL SKILLS

Schematic & PCB Tools:	OrCAD Capture, Allegro, Altium Designer (Rockwell years), Windchill PLM
Simulation & Analysis:	LTspice, MATLAB, PSpice, SIwave, worst-case and Monte Carlo analysis
Power Conversion:	Medical AC-DC supplies, Li-ion charging, buck and boost converters, LDOs, 24 V industrial inputs
Analog & Signal Chain:	24-bit ADCs, instrumentation amplifiers, right-leg drive, active filters, isolated amplifiers
Interfaces & Microcontrollers:	SPI, I2C, USB, Ethernet, EtherNet/IP, STM32
Lab & Test Equipment:	LabVIEW, Keysight oscilloscopes, ECG patient simulators, hipot testers, thermal chambers
Compliance Standards:	IEC 60601-1, IEC 60601-1-2, ISO 14971, IEC 61010-1, CISPR 11

EDUCATION

Marquette University — **M.S. in Electrical and Computer Engineering** — Milwaukee, WI · Aug 2012 to May 2014

WORK EXPERIENCE

GE HealthCare — Lead Electrical Engineer — Waukesha, WI · Apr 2020 to Present

- Lead **6** electrical engineers on a new bedside patient monitor platform, setting the architecture and part selection rules for 9 boards and cutting unique part numbers by **27%** across the family.
- Set the noise budget for the **ECG** and **SpO2** front ends and signed off the **24-bit** ADC and right-leg drive design, holding input noise under **8 µV** peak to peak.
- Owned the power architecture from the medical-grade AC-DC supply to the **Li-ion** charger, with 2 MOPP isolation, extending battery runtime on patient transport from 4.5 to **6 hours**.
- Took the platform through **IEC 60601-1** and **IEC 60601-1-2** testing at an outside lab with no safety findings and a single EMC fix, closed in **9 days**.
- Ran DFM and NPI with the contract manufacturer through EVT, DVT and PVT builds, raising first-time yield from 91% to **98.5%** before launch.

Rockwell Automation — Senior Electrical Engineer — Milwaukee, WI · Jun 2014 to Mar 2020

- Set stackups and return paths for a family of **EtherNet/IP** I/O module boards with the layout team, and all **7** boards cleared radiated emissions on their first test.
- Built **LTspice** and **MATLAB** worst-case models of the modules' 24 V input protection, and field returns from surge damage fell by **60%** the year after the redesign.
- Set up a **LabVIEW** validation bench that runs modules across temperature, raising test coverage from 300 manual cases to **1,200** automated ones per release.